RECEIVED NOV 18 2020
DG New York CS, LLC

1-6 12/2/20

November 17, 2020

Attn: Bruce Weber, Planning and Zoning Officer
Town of Cortlandville
3577 Terrace Road
Cortland, NY 13045

Re: **Application for a Ground-mounted Large-scale Solar Energy System on Parcel ID #112289 87.00-03-08.112**

Dear Mr. Weber,

Please find attached an application from DG New York CS, LLC in order to facilitate of up to 5 megawatts alternating current (5 MW AC) of solar power in the Town of Cortlandville, New York.

Please find the following attachments included with our application:

1. General Municipal Law – Zoning Referral Form
2. Conditional Use Application
3. Aquifer Permit Application
4. Description of Proposed Use
5. Full Environmental Assessment Form
6. ALTA drawing
7. Preliminary Site Plans
8. Decommissioning Plan
9. Equipment Datasheets

Sincerely,

Janet Ward
Project Manager
DG New York CS, LLC

Attachment 1 – General Municipal Law – Zoning Referral Form

GENERAL MUNICIPAL LAW

Zoning Referral Form

Conditional Permits, Special Permits, Site Plan Reviews & Variances

Director
CORTLAND COUNTY PLANNING DEPARTMENT
37 Church St.
Cortland, NY 13045-2838
Telephone: (607) 753-5043
Fax: (607) 753-5150

GML No. 87 . 00 - 03 - 08 . 112
(Tax Map Number)

Date: _____

Submitting Officer: Bruce Weber, Planning & Zoning Officer

Municipality: Town of Cortlandville

Mailing Address: 3577 Terrace Road, Cortland, NY 13045

Phone Number: (607) 756-7052

Fax Number: (607) 758-7922

Type of Referral

The applicant request the following:

Variance: _____ Bulk – Article _____ Section _____
_____ Use – Article _____ Section _____

Special Permit: Article _____ Section _____

Conditional Permit: Article X Section 178-75

Site Plan Review: Article X Section 178-71

Reason(s) for request: Site plan review for a ground-mounted large-scale solar energy system.

Is the above action a **Type 1** X , **Type 2** _____ , or unlisted action under the State Environmental Quality Review Act? Attach required environmental assessment forms for Type I and unlisted actions.

The following information is required for your application to be complete:

1. Name of petitioner: DG New York CS, LLC

   Owners name (if different): Forbes Realty LLC

   Date of acquisition: Purchase Option

Address: Riley Road

State: New York Zip: 13046

Phone Number: 845-821-5320 (Petitioner - Janet Ward) Fax Number: _____

2. A Site Plan Map showing:

   a. Scale (1 inch equals 20 feet if site is less than 1 acre or an agreed upon scale for a site larger than 1 acre)
   b. North Arrow
   c. Physical Characteristics of Site, existing and proposed (Topography, Water and Vegetation)
   d. Layout Plan Showing buildings, parking and available utilities
   e. Surface and Subsurface Drainage Plan, incorporated with Layout Plan
   f. Location of County or State facility pursuant to Section 239 l, m and n of the General Municipal Law
   g. Location Map at 1"=1000' scale
   h. Area Map at 1"=200' or an agreed upon scale
      (1) zoning classification of subject and adjoining properties
      (2) surrounding land use within 500 feet of subject property
      (3) surrounding zoning classifications

3. A certified Tax Map from the Cortland County Office of Real Property and Assessment showing the property lines of the applicant's property.

4. Availability of public utilities and services:

   Water NA District _____ ; Sewer NA District _____ ;

   Fire Protection Yes District Cortlandville ; Refuse Collection NA

   Special services required: Not Applicable

5. Does Site Plan conform to municipal master plan? Yes If not why? _____

6. Does Site Plan conform to county land use plan? Yes If not why? _____

7. School District: McGraw

8. Projected energy consumption: Not Applicable Type: Not Applicable

9. Traffic generation (expected vehicle departures and arrivals per 24 hour period) : See attached

NOTE: All maps require the name and address of the N.Y.S. licensed engineer or land surveyor responsible for preparing the seal and map.

_____

Signature and Title of Submitting Official

(REVISED: 8/01)

File Name: pln/wpdata/forms/Zoning Referral Form.05/03/05
[Conditional Permits.Special Permits.Site Plan Reviews.Variances]

Attachment 2 – Conditional Use Application

TOWN OF CORTLANDVILLE
3577 TERRACE ROAD
CORTLAND, NEW YORK 13045-3552

APPLICATION FOR CONDITIONAL PERMIT

APPLICANT

Name DG New York CS IV, LLC Fee Paid $250.00

Address 700 Universe BLVD, A1A/JB Phone ATTN: Janet Ward 845-821-5320

Juno Beach, FL 33408

PROPERTY OWNER

Name Forbes Reality LLC Phone 607-345-0723

Address 5051 Forbes Rd, Cortland, NY 13045

PROPERTY INFORMATION

Location of property Riley Road
Tax Map No. of Parcel 112289 87.00-03-08.112

PROPERTY ACQUIRED ON, OR PENDING DATE OF AQUISTION Purchase Option
IS PROPERTY IN FLOOD PLAIN? ____ YES __X__ NO
ZONING DISTRICT Agricultural (AG)
PROJECT DISCRIPTION Large-scale solar energy system.

Information to be included will be drawn from a checklist in Article XIV of the Cortlandville Zoning Law.

DATE OF APPLICATION November 17, 2020

Matthew G. Ulman
Vice President
Signature of Applicant

Zoning Officer

Planning Board Chairperson

PERMIT GRANTED _____

PERMIT DENIED _____

Attachment 3 - Aquifer Permit Application

TOWN OF CORTLANDVILLE
3577 TERRACE ROAD
CORTLAND, NEW YORK 13045-3552

AQUIFER PROTECTION DISTRICT SPECIAL PERMIT

APPLICANT Fee Paid _____

Name DG New York CS IV, LLC Phone ATTN: Janet Ward 845-821-5320

Address 700 Universe Blvd, Juno Beach, A1A/JB, FL 33408

PROPERTY OWNER

Name Forbes Reality LLC Phone 607-345-0723

Address 5051 Forbes Rd, Cortland, NY 13045

If applicant is a Corporation, list name, address, phone and fax numbers of all corporate officers and directors on reverse side.

PROPERTY INFORMATION

Location of property Riley Road
Tax Map No. of Parcel 112289 87.00-03-08.112

PROPERTY ACQUIRED ON, OR PENDING DATE OF AQUISTION Purchase Option date to be determined
IS PROPERTY IN FLOOD PLAIN? ____ YES X NO
AQUIFER PROTECTION AREA Not Applicable
ZONING DISTRICT Agricultural (AG)

Information to be provided as per Article and Section 178-47 of the Town of Cortlandville Zoning Law.

DATE OF APPLICATION 11/16/2020

_____ Matthew G. Ulman
Signature of Applicant Vice President

_____
Zoning Officer

_____
Supervisor

PERMIT GRANTED _____

PERMIT DENIED _____

Name _____ Title _____

Address _____ Phone _____

_____ Fax _____

Name _____ Title _____

Address _____ Phone _____

_____ Fax _____

Name _____ Title _____

Address _____ Phone _____

_____ Fax _____

Name _____ Title _____

Address _____ Phone _____

_____ Fax _____

Name _____ Title _____

Address _____ Phone _____

_____ Fax _____

Name _____ Title _____

Address _____ Phone _____

_____ Fax _____

COMMENTS: _____

_____

_____

Attachment 4 - Description of Proposed Use

DG New York CS IV, LLC
Riley Road Solar and Energy Storage Project

Description of Proposed Use

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Riley Road Solar and Energy Storage Project Description –
Parcel Identification Number (PIN): 87.00-03-08.112

1.0 Introduction

DG New York CS IV, LLC (Applicant) is petitioning the Town of Cortlandville for a Conditional Permit/Site Plan approval to allow for the development of the Riley Road Solar and Energy Storage Project (Project), a proposed 5-megawatt (MW) alternating current (AC) solar photovoltaic (PV) project located within the municipal jurisdiction of the Town of Cortlandville, Cortland County, New York.

The proposed Project will be located on an approximately 52-acre parcel. The Project will be located to the east of Interstate 81 and East River Road and to the south of Riley Road. The geographic coordinates of the center of the site are approximately 42.6025281°/-76.153369°.

The owner and operator of the facility will be the Applicant, which is a limited liability company (LLC). The contact information for the Applicant is as follows:

DG New York CS IV, LLC
700 Universe Blvd. A1A/JB
Juno Beach, FL, 33408

The Project Manager for this application submittal is Janet Ward (845-821-5320).

The narrative provided herein is intended to supplement the supplement the Conditional Use and Aquifer Applications (Attachments 1 and 2 of the overall submittal to the Town of Cortlandville; hereafter "Application").

Information provided in this narrative includes discussions of the following topics:

- Project Purpose
- Project Overview
- Existing Conditions
- Project Components
- Town of Cortlandville Solar Energy System Standards
- Town of Cortlandville Conditional Permit Standards
- Town of Cortlandville Aquifer Protection District Special Permit Conditions
- Development of the Project

Preliminary design information is provided as Attachments 6 (ALTA Plan) and 7 (Preliminary Site Plans) of the overall Application.

2.0 Project Purpose

The purpose of the Project is to create clean, renewable energy for the citizens of New York and to assist in diversifying the state's energy generation portfolio by using the sun's natural output to meet the energy demands of hundreds of homes.[1] In addition to providing clean and renewable energy, the proposed Project will fulfill the need to supplement the community's energy supply, increase their resilience, and stabilize their energy supply. The proposed Project will contribute to the state's renewable energy goals in its efforts to lessen energy production's impact on the environment and to take incremental steps to respond to climate change.

DG New York CS IV, LLC, will own and operate the proposed Project, as well as manage a group of customers who voluntarily 'subscribe' to the output from the system. As a benefit to participating in the community solar program, subscribers will receive bill credits proportional to the size of their subscription on their electric utility bills.

3.0 Project Overview

Solar energy is a renewable source of clean energy that is not detrimental or endangering to public health. The Project represents a 5.0-MW solar energy project that can potentially provide clean and renewable electricity for hundreds of homes in the community.

The Project is designed to encompass approximately 39 acres of the roughly 52-acre parcel. The parcel is located east of Interstate 81 and East River Road and to the south of Riley Road.

The proposed Project will consist of ground-mounted PV arrays that will be mounted on a single axis tracking system, which is designed to track the sun's movement, as the PV panels are designed to rotate and track. This type of PV array is designed to allow for a higher solar energy capture efficiency than a static system. At their maximum height, the solar array, including trackers and inverters, will be approximately 15 feet above ground, and the battery storage equipment (if used) will be 12 feet above ground, a height unimposing to local residents.

An approximately 7-foot perimeter fence, 6 –foot fence with 1 foot of barbed wire, will be installed around the footprint of the proposed Project. The fence will include manual swing gates and an access driveway (with an aggregate base). The site will be accessed from a new driveway via Riley Road.

The Applicant will be responsible for maintaining the proposed Project; however, it will operate quietly and without the need of daily oversight. Signage at the site will include the names and phone numbers of the electric utility provider and the site operator (i.e., a 24-hour emergency contact). The facility's 911 address and coordinates will be noted.

[1] Based on average monthly consumption of 603 kilowatt hour/month per residence in New York. https://www.electricitylocal.com/states/new-york/.

4.0 Existing Conditions

The proposed Project is located on previously undeveloped agricultural land adjacent to Interstate 81 and developed agricultural land within the Town of Cortlandville. The proposed Project site is located on a parcel zoned as part of the Agricultural (AG) district. The proposed Project will be designed to comply with all of the applicable setback requirements. The preliminary site plans (Attachment 4) demonstrate how these requirements are met.

The area surrounding the Project site consists of agricultural and residential parcels. Land to the north and east of the proposed Project site is zoned as Agricultural AG district. Land to the west of the Project site on the other side of Interstate 81 is zoned Agricultural AG district, Residential R-1, Residential R-2, Highway Commercial Business B-2, and General Industrial I-2 districts.

5.0 Project Components

The equipment manufacturer and the type of model of solar collectors will be determined at a later date; however, the proposed Project will be designed and engineered by a New York-licensed professional engineer that will certify that the proposed Project meets, or exceeds, the manufacturer's construction and installation standards. The proposed Project will be built to product and industry safety standards, and the threat from fire or electrical hazard with this type of project is extremely low.

While the specific equipment manufacturers have yet to be determined, the proposed Project will include the placement of PV panels and the construction of a fence, access road, sun tracking components, direct current (DC)/AC power inverters, medium-voltage transformers (MVTs), control and distribution cabinets, a medium-voltage collection system, Project switch-gear, an interconnection to the existing electrical distribution system, and, potentially, a battery energy storage system.

If requested, the Applicant will provide the Town of Cortlandville with copies of the manufacturers' specifications and recommended installation methods for the PV panels, mounting systems, and foundation supports prior to construction.

5.1. PV Panels

The PV panels will be secured on a tracking system (to rotate and track the sun's movement) and will be supported by metal piers driven, or screwed, into the ground to a depth of approximately 6 to 8 feet, unless soil conditions require deeper posts or the use of a ballasted system. Prior to construction, a geotechnical study will be conducted to determine the depth and mount type necessary for construction. At their maximum height, the solar array, including trackers and inverters, will be 15 feet above ground.

To support the PV panels, the proposed Project will utilize a single-axis tracking system, which is designed to optimize power production by allowing the PV panels to track the sun. Single-axis tracking systems vary by manufacturers, but generally consist of a series of mechanically linked horizontal steel support beams, known as torque tubes, with a drivetrain system that is usually located in the center of the rows, dividing the array into two sides. The number of rows within a tracker block can vary, but it is

typically limited by the system's ability to move the torque tube assemblies and the desired solar output amount.

5.2. Additional Equipment

The proposed Project layout assumes two equipment pads will be constructed for the 5.0-MW array. An equipment pad consists of one or more DC/AC inverters, a MVT, control cabinet(s), and battery energy storage system (additional information included herein). These components are often mounted on a concrete slab, with or without an enclosure. At this time, the number of equipment pads necessary for the Project has yet to be finalized, as this is conditional on the final design layout. This information will be provided to the Town of Cortlandville via the final engineering design drawings.

When in operation, the voltage of the converted AC current is increased through the MVTs prior to transmission to the grid. The DC power will be routed through three MVTs to convert it to AC power. The proposed Project will include a DC collection system, which will collect electricity from the PV panels and transmit it to the inverters. Panels will be grouped into a series of circuits (strings), and the strings will subsequently be wired in parallel through electrical harnesses that travel through the cable trays to DC termination blocks located within the respective inverters. The inverters will convert the DC power, created by the solar modules and delivered by the electrical harnesses, into AC power. This AC output power will then be combined at the proposed Project's main aggregating solar switchboard and will feed into the grid across the point of common coupling with the utility. The total number of inverters will vary with the final tracker design and the proposed Project's final system size. The design includes considerations for the potential inclusion of battery energy storage and associated equipment, which could be used to store energy produced during the day to be delivered to the grid in the evening.

The electricity collection network will consist of underground collection cables, which are used to conduct the electricity to the proposed Project's protective switch-gear and metering equipment. These cables will be buried approximately 36 to 48 inches below ground.

The proposed Project will include a connection to an existing 34.5-kV overhead electrical line. This line will be used to transmit the electricity produced at the Project to the grid. All components, including the overhead electrical line connection point, will be located inside of the proposed Project's perimeter fencing.

5.3. Battery Storage Equipment

NextEra Energy Resources is not only the world's leading generator of renewable energy, we are also leading the way in energy storage. NextEra Energy Resources has approximately 133 MW of operational energy storage, including:

- Montauk Energy Center, New York;
- Minuteman Storage, Massachusetts;
- Elmira Energy Storage, Ontario;
- Parry Energy Storage, Parry Sound, Ontario;
- Casco Bay Battery Energy Storage System, Maine;

- Mantua Creek Battery Energy Storage System, New Jersey;
- Lee DeKalb Battery Energy Storage System, Illinois;
- Gopher Energy Storage, Anoka and Isanti Counties, Minnesota;
- Green Mountain Battery Energy Storage, Pennsylvania;
- Pima Battery Energy Storage System, Arizona;
- Blue Summit Energy Storage, Texas; and
- Behind-the-meter energy storage projects in California and Massachusetts.

Additionally, in development, the company has over 700 MW of energy storage projects across the U.S. and Canada. Approximately one-third of the new solar projects we are now developing for customers include a storage component.

5.3.1. Technology

While there are many energy storage technologies, NextEra Energy Resources has focused on the use of batteries, as costs have declined, but is continuing to evaluate other storage technologies.

- Lithium ion is the dominant technology because it benefits from more than $100 billion in research and development from the electric vehicle industry.
- NextEra Energy Resources has a battery testing facility to measure battery performance and degradation, as well as testing alternative technologies.
- If maintained properly, depending on the use case, a battery system can last 15 to 20 years or longer, and can be replenished over time.

5.3.2. Components

A battery energy storage system, which can be paired with a renewable energy asset (solar, wind) or stand alone, typically includes the following components:

- Individual battery cells (the size of an iPad);
- Racks that contain the stacked battery modules housing the batter cells;
- Containers, not unlike storage containers typically seen on a ship or truck, that are packed with the racks;
- Inverters to convert DC/AC electricity, which are paired with the containers; and
- HVAC to maintain temperature control; and

5.3.3. Benefits

Energy storage delivers several advantages to the power grid and our customers. What makes energy storage attractive is that it can store electricity and deliver it later at a more appropriate time, in the required amount, to either grid operators or direct consumers. By doing this, energy storage provides many advantages, such as improving the operation of the electrical grid, integrating renewable resources, and helping investment decisions.

Energy storage helps optimize the way the power grid delivers electricity to customers with a wide variety of use cases:

- Smooths out fluctuations in frequency and voltage;
- Reduces energy losses and waste;
- Extends the hours a renewable energy project can operate, i.e., even after the sun goes down or the wind stops blowing; and
- Allows customers to enjoy more renewable energy, more hours of the day.

The applicant has also provided a fire protection and control methodology for battery energy storage systems that is attached to the end of this narrative.

6.0 Town of Cortlandville Solar Energy System Standards

The DG New York CS IV, LLC submittal to the Town of Cortlandville accounted for the standards for ground-mounted large-scale solar energy system in the development of the preliminary sites plans. The requirements are noted in the Zoning Ordinance at § 178-123.3 Solar energy systems.

*D. **Permitted locations - (3) Ground-mounted large-scale solar energy systems.***

> ***(a) Ground-mounted large-scale solar energy systems are permitted as principal and accessory uses through the issuance of a conditional permit within Agriculture and Industrial Zoning Districts, subject to the requirements set forth in this section.***
> ***(1) Ground-mounted large-scale solar energy systems that produce electricity or thermal energy primarily for active farming or agricultural uses, where the generation is less than 110% of the farm use, shall be exempt from the requirement to obtain a conditional permit.***

As demonstrated herein, the Project is located in an Agricultural AG district and the Applicant is applying for a conditional permit.

> ***(b) Ground-mounted large-scale solar energy systems shall not be located in the following areas unless otherwise approved by the Town Planning Board in conjunction with the conditional permit approval process:***
> ***(1) Prime farmland soils as identified by the USDA-NRCS or alternative available resource.***
> ***(2) Areas of potential environmental sensitivity, including unique natural areas, floodplains, historic sites, state-owned lands, conservation easements, trails, parkland, prime soils, and wetlands as identified by Cortland County Planning Department mapping services, the New York State Department of Environmental Conservation, or the United States Army Corps of Engineers.***
> ***(3) On slopes of greater than 15%, unless the solar energy applicant can demonstrate through engineering studies and to the satisfaction of the Town that the proposed development will cause no adverse environmental impact that will not be satisfactorily mitigated.***

The Applicant has reviewed the provisions and understands the conditional permit approval process in which prime farmland soils, areas of potential of environmental sensitivity, and slopes are considered.

(c) No conditional permit or renewal thereof or amendment of a current conditional permit relating to a ground-mounted large-scale solar energy system shall be granted by the Town Planning Board unless the solar energy applicant demonstrates that such ground-mounted large-scale solar energy system:

(1) Conforms to all federal and state laws and all applicable rules and regulations promulgated by any federal or state agencies having jurisdiction.

The Project will comply with all applicable town, county, state, and federal regulations.

(2) Is designed and constructed in a manner which minimizes visual impact to the extent practical.

As demonstrated herein, the existing vegetation will be kept to the extent possible. Fencing also will be used to accommodate safety needs, as well as providing a visual transition to surrounding properties. The Applicant will prepare appropriate plans to mitigate visual and aesthetic impacts of the Project, if required by the Town of Cortlandville Planning Board.

(3) Complies with all other requirements of the Town of Cortlandville Zoning Law.

As demonstrated herein, the Project will comply with all applicable Town of Cortlandvulle Zoning regulations.

(4) Conforms to all adopted plans of the Town of Cortlandville.

The Applicant has considered the proposed Project's location, arrangement, size, design, and general site compatibility in order to be amenable to existing patterns of development, current land uses, and long-term development objectives. The Applicant has reviewed the Town's comprehensive plan and recognizes that the Town has adopted goals and polices to encourage renewable energy while protecting the character and viability of different land uses. In this manner, the Applicant has developed a preliminary design to account for these goals.

(5) Complies with a fifty-foot front yard, rear yard, and side yard setback.

The proposed Project will be designed to comply with all of the applicable setback requirements. The Preliminary Site Plans (Attachment 7) demonstrate how these requirements are met.

(6) Does not exceed twenty feet in height.

As demonstrated herein, at their maximum height, the solar array, including trackers and inverters, will be approximately 15 feet above ground and the battery storage equipment will be 12 feet above ground.

(7) Has a solar collector surface area (as measured in the horizontal plane) that, when combined with the coverage of other structures on the lot, does not exceed twice the maximum lot coverage as permitted in the underlying zoning district.

The proposed Project will be designed to not exceed twice the maximum lot coverage of 20 percent for Agricultural AG districts. The Preliminary Site Plans (Attachment 7) demonstrate how these requirements are met.

E. Conditional use design and installation standards.

(1) Appearance and buffering:

a. The ground-mounted large-scale solar energy system shall have the least visual effect practical on the environment, as determined by the Town Planning Board. Based on site-specific conditions, including topography, adjacent structures, and roadways, reasonable efforts shall be made to minimize visual impacts by preserving natural vegetation, and providing landscape screening to abutting residential properties and roads, but screening should minimize the shading of solar collectors.

The Applicant has considered the proposed Project's location, arrangement, size, design, and site-specific conditions with regard to visual impacts. As demonstrated herein, the existing vegetation will be kept to the extent possible. Fencing also will be used to accommodate safety needs, as well as providing a visual transition to surrounding properties. The Applicant will prepare appropriate plans to mitigate visual and aesthetic impacts of the Project, if required by the Town of Cortlandville Planning Board.

b. Any exterior lighting installed shall have the least visual effect practical on the contiguous properties and shall be approved by the Town Planning Board.

The proposed Project will not require the use of lighting.

c. The Town Planning Board may require additional information, such as line-of-sight drawings, detailed elevation maps, visual simulations, before and after renderings, and alternate designs to more clearly identify adverse impacts for the purpose of their mitigation.

The Applicant will provide the Town Planning Board with additional information as requested.

d. Equipment and vehicles not used in direct support, renovations, additions or repair of any ground-mounted large-scale solar energy system shall not be stored or parked on the facility site.

The Project will comply with these requirements.

(2) Access and parking:

a. Ground-mounted large-scale solar energy systems shall be enclosed by fencing to prevent unauthorized access. Warning signs with the owner's name and emergency contact information shall be placed on any access point to the system and on the perimeter of the fencing. The fencing and the system shall be further screened by any landscaping or decorative fencing needed to avoid adverse aesthetic impacts as approved by the Town Planning Board.

As described herein, an approximately 6-foot perimeter fence will be installed around the footprint of the proposed Project. The fence will include manual swing gates. Existing vegetation will be kept to the extent possible.

Appropriate signage will be installed at the facility, including "high voltage" warning signs on the perimeter fencing. Signage will include the names and phone numbers of the electric utility provider and the site operator (i.e., a 24-hour emergency contact). The facility's 911 address and coordinates will be noted. All signage will comply with the Town of Cortlandville's applicable signage regulations.

b. Motion-activated or staff-activated security lighting around the equipment area of a ground-mounted large-scale solar energy system or accessory structure entrance may be installed provided that such lighting does not project off the site. Such lighting should only be activated when the area within the fenced perimeters has been entered.

As discussed above, the proposed Project will not require the use of lighting.

c. A locked gate at the intersection of the accessway and a public road may be required to obstruct entry by unauthorized vehicles. Such gate must be located entirely upon the lot and not on the public right-of-way.

As described herein, the access driveway will include manual swing gates that will be secured to prevent unauthorized entry.

(3) Engineering and maintenance:

a. Every solar energy system shall be built, operated and maintained to acceptable industry standards, including but not limited to the most recent, applicable standards of the Institute of Electric and Electronic Engineers ("IEEE") and the American National Standards Institute ("ANSI").

b. The Town, at the expense of the solar energy applicant, may employ its own consultant(s) to examine the application and related documentation and make recommendations as to whether the criteria for granting the conditional permit have been met, including whether the applicant's conclusions regarding safety analysis, visual analysis, structural inspection, and stormwater management aspects are valid and supported by generally accepted and reliable engineering and technical data and standards.

As aforementioned, the equipment manufacturer and the type of model of solar collectors will be determined at a later date; however, the proposed Project will be designed and engineered by a New York-licensed professional engineer that will certify that the proposed Project meets, or exceeds, the manufacturer's construction and installation standards. The proposed Project will be built to product and industry safety standards.

F. Special provision. The Town Planning Board may impose conditions on its approval of any conditional permit under this section in order to enforce the standards referred to in this section or in order to discharge its obligations under the State Environmental Quality Review Act (SEQRA).

The Applicant is prepared to address any additional conditions required by the Town Planning Board.

G. Height and setback restrictions.

(2) Ground-mounted systems may not exceed the permitted height of accessory structures in the zoning district where the solar energy system is to be installed or 20 feet from the ground, whichever is less.

As demonstrated herein, at their maximum height, the solar array, including trackers and inverters, will be approximately 15 feet above ground and the battery storage equipment will be 12 feet above ground.

(3) Setback for ground-mounted systems as a primary use or accessory use are subject to setback requirements in the zoning district in which the system is to be constructed.

a. The required setbacks are measured from the property line to the nearest part of the system. No part of the ground-mounted system shall extend into the required setbacks due to a tracking system or other adjustment of solar energy related equipment or parts.

As demonstrated herein, the proposed Project will be designed to comply with all of the applicable setback requirements. Preliminary Site Plans (Attachment 7) demonstrate how these requirements are met.

H. Nonconformance.

(2) Ground-mounted systems:

a. If a ground-mounted system is to be installed on a property containing a structure that is nonconforming because the required minimum setbacks are exceeded, the proposed system shall be permitted so long as the system does not encroach into the established setback for the property.

b. If a ground-mounted system is to be installed on a property that is nonconforming because it violates zoning district requirements other than setbacks, then a conditional permit must be obtained for the proposed installation.

The proposed Project site does not contain existing structures and will conform to all zoning requirements.

I. Signage and/or graphic content.

(1) No signage or graphic content may be displayed on the solar PV system except the manufacturer's badge, safety information and equipment specification information. Said information shall be depicted within an area no more than 36 square inches in size.

(2) Disconnect and other emergency shutoff information will be clearly displayed on a light reflective surface.

(3) Twenty-four-hour emergency contact information will be clearly displayed.

(4) Systems and sites may not be used for displaying advertising except for reasonable identification of the owner/operator and shall comply with all signage restrictions.

Appropriate signage will be installed at the facility, including "high voltage" warning signs on the perimeter fencing. Signage will include the names and phone numbers of the electric utility provider and the site operator (i.e., a 24-hour emergency contact). The facility's 911 address and coordinates will be noted. All signage will comply with the Town of Cortlandville's applicable signage regulations.

K. Abandonment and decommissioning.

(1) At the time of submittal of the application for a conditional permit for a ground-mounted large-scale solar energy system, the solar energy applicant shall submit and agree to the performance of a decommissioning plan that includes the removal of the solar energy system and all associated equipment, driveways, structures, buildings, equipment sheds, lighting, utilities, fencing, and gates. If such system becomes technologically obsolete or ceases to perform its originally intended function for more than six consecutive months, the Town may require its removal in accordance with the decommissioning plan. The Town shall provide the solar energy system owner 30 days' prior written notice of a request for decommissioning. Upon removal of a ground-mounted large-scale solar energy system, the land shall be restored to its previous condition, including but not limited to the seeding and sodding, as appropriate depending upon the season of the work, of exposed soils.

(2) At the time of obtaining a building permit, the solar energy applicant may be required to provide a financial security bond or other form of financial security acceptable to the Town for removal of the ground-mounted large-scale solar energy system and property restoration, with the Town of Cortlandville as the obligee, in an amount approved by the Town Board (the amount to restore the site to its preconstruction or negotiated condition). Upon any amendment of the conditional permit, the Town Board may adjust the required amount of the financial security bond to adequately cover increases in the cost of removal of the ground-mounted large-scale solar energy system and property restoration. If the ground-mounted large-scale solar energy system is not decommissioned after being considered abandoned, the Town may remove the system and restore the property and impose a lien on the property to recover these costs to the Town.

(3) All other solar energy systems shall be considered abandoned after six consecutive months without electrical energy or thermal energy generation and must be removed from the property. The Town Board may consider and grant, for good cause shown, an application for one extension not exceeding 24 months for solar energy systems other than ground-mounted large-scale solar energy systems.

The Applicant would comply with the Town's decommissioning requirements, and as outlined in the Applicant's decommissioning plan (Attachment 8).

L. Permit requirements.

(1) Before any construction or installation on any solar PV system shall commence, a building permit issued by Town of Cortlandville shall be obtained to document compliance with this section.

The Applicant will obtain a building permit from the Town of Cortlandville prior to construction or installation of the proposed Project.

7.0 Town of Cortlandville Conditional Permit Standards

The DG New York CS IV, LLC submittal to the Town of Cortlandville accounted for the requirements of a conditional permit in the development of the preliminary sites plans. The requirements are noted in the Zoning Ordinance at § 178-75. Structure/use requirements for permit approval.

A. In order to grant approval for a conditional permit, the applicant must prove that the structure and/or use:

(1) Is appropriate for the particular lot and area and will not conflict with allowed uses.

As demonstrated herein, the proposed Project site is on a lot zoned as Agricultural AG, and the proposed solar energy systems are a permitted use. The Applicant has considered the proposed Project's location, arrangement, size, design, and general site compatibility in regards to setback and height requirements.

(2) Is in compliance with all other applicable sections of this chapter.

The Applicant has considered the applicable sections of the conditional permit conditions and has adhered to appropriate design requirements as part of the development of the preliminary site plans (Application Attachment 7).

(3) Is physically and visually compatible with general neighborhood or planned neighborhood development.

As demonstrated herein, the Applicant has considered the proposed Project's location, arrangement, size, design, and general site compatibility in order to be amenable to existing patterns of development, current land uses, and long-term development objectives. In this manner, the use is compatible with adjoining development and the character of the neighborhood in which it would be located.

(4) Provides a suitable transition when located between differing uses or districts where none is provided or provides a visual buffer by landscaped green areas or fencing.

As aforementioned, existing vegetation will be kept to the extent possible (e.g., minimal tree clearing will be needed). Fencing also will be used to accommodate safety needs, as well as providing a visual transition to surrounding properties.

(5) Has adequate space and plans for off-street parking.

If parking is needed during construction or operation, vehicles will park within the fence. As the facility is not open to the public, once in operation, parking areas are not provided. Operations and maintenance vehicles will park within the fence, if working at the facility site.

(6) Has future expansion or revision capabilities without need for variances.

The Applicant does not anticipate the need for future expansion of the solar and energy storage facility.

(7) Provides for safe handling of vehicular traffic to and from the site without causing congestion. No new vehicular entrances shall be permitted within 50 feet of an existing intersection.

The Project will not interfere with traffic on abutting streets. As previously discussed, the Project will be designed to consider the safe and efficient movement of vehicles within the site and the surrounding areas. The area in which the Project will be located may see a slight increase in a traffic activity at the Project site during construction; however, once commercial operation is achieved, traffic will be negligible, consisting of the occasional maintenance vehicle during servicing and maintenance of the facility as needed.

The solar facility's proposed access road will be along the south side of Riley Road at a distance of over 50 feet from the nearest intersection (Attachment 7).

(8) Provides for safe passage of pedestrians.

The facility will not be open to the public; therefore, the design accounts for the appropriate pedestrian traffic access for facility personnel. As shown in Attachment 7 (Preliminary Site Plans), for instance, emergency gates are present for the use of the facility personnel.

(9) Enhances neighboring property and does not lead to depreciation of properties (by reason of noise, traffic, dust, fumes, smoke, odor, fire, glare, flashing lights or sewage disposal).

As demonstrated herein, potential nuisances to neighboring properties will be minimal; in this manner, the Applicant has addressed the following:

- **Noise** – While noise may occur during construction, this will be limited in duration and be localized to the area of activity. Once constructed, the Project will operate quietly and will neither produce noise in exceedance of the base ambient noise of the area, nor will it impair the supply of available daylight or affect air quality. Also, the proposed Project will not include an operations and maintenance facility or sanitary service building, which would have the potential to generate additional noise.

- **Traffic** – As aforementioned, the area in which the Project will be located may see a slight increase in a traffic activity at the Project site during construction; however, once commercial operation is achieved, traffic will be negligible

- **Dust** – Dust produced at the site is expected to be minimal, as the majority of vehicle activity will be kept to the paved roads surrounding the site.

- **Smoke, Odors, and Fumes** – The operation of the Project will not create smoke, odors, or fumes. The Project will be built to product and industry safety standards. As such, the threat from fire or electrical hazard with this type of project is extremely low. Appropriate measures will be taken on site to address the safety requirements of the solar facility. No public expense will be anticipated for fire, police, or additional safety protections for the Project.

- **Lighting/Glare** – As aforementioned, the proposed Project will not require the use of lighting. The Project is unlikely to provide glare that is noticeable from surrounding residences or the roadway. A glare study is in process and will be provided in future permit submission.

- **Sewage** - No on-site water supplies or sanitary sewage disposal facilities are needed. The proposed Project will be designed to account for appropriate wastewater disposal during construction and operation.

B. The Applicant has further considered the following: In granting a conditional use, the Planning Board shall make findings of fact consistent with the provisions of this chapter. The Planning Board shall not approve a conditional use except in conformity with the spirit, purposes, conditions and standards outlined in this chapter. In order to obtain the Planning Board's approval of a conditional permit, the applicant must prove that the location, structure, and/or use:

(1) Is consistent with the general intent of the Town of Cortlandville's Land Use and Aquifer Protection Plan.

The Project is located outside of the area identified as part of the Town Aquifer. However, the Applicant has considered the requirements of the Aquifer Protection District Special Permit Conditions in its preliminary designs.

(2) Is in conformity with all applicable requirements of this chapter and all Town ordinances.

As described herein, the Applicant has considered the proposed Project's location, arrangement, size, design, and general site compatibility in order to be amenable to existing patterns of development, current land uses, zoning requirements, and long-term development objectives. The Applicant has reviewed the Town's comprehensive plan and recognizes that the Town has adopted goals and polices to encourage renewable energy while protecting the character and viability of different land uses. In this manner, the Applicant has developed a preliminary design to account for these goals.

(3) Will not pose a significant threat to the quality and/or quantity of Cortlandville's sole source aquifer or its delineated wellhead protection zones.

The Applicant has considered the presence of the sole source aquifer and its delineated wellhead protection zones. The design of the Project is compatible with the geologic, hydraulic, and soil conditions of the site. As shown in Attachment 7 (Preliminary Site Plans), the Project accounts for the soil capabilities and provides for appropriate drainage and stormwater management. Where required, earthwork will include site grading to create finished grade slopes suitable for racking installation and storm water management improvements. All earthwork activities will conform with county standards, will be designed with a detailed Stormwater Pollution Prevention Plan (SWPPP) to avoid increased surface runoff, and will not increase the potential for flood damages to adjacent properties or the nearby surface waters or wetlands. The SWPPP will be designed to adhere to National Pollutant Discharge Elimination System (NPDES) guidelines and will contain best management practices, designed to reduce and limit the rate of stormwater runoff and mitigate erosion.

(4) Is in the best interests of the Town, the community, and the public welfare, and shall not be a detriment to the properties in the immediate vicinity.

Solar energy is a renewable source of clean energy that is not detrimental or endangering to the Town, the community, and the public welfare. The Project represents a 5-MW solar energy project that can potentially provide clean and renewable electricity for hundreds of homes in the community.

(5) Is suitable for the property in question and designed to be constructed, operated, and maintained so as to be in harmony with and appropriate in appearance with the existing or intended character of the general vicinity.

As demonstrated herein, the Applicant has considered the proposed Project's location, arrangement, size, design, and general site compatibility in order to be amenable to existing patterns of development, current land uses, and long-term development objectives. In this manner, the use is compatible with adjoining development and the character of the neighborhood in which it would be located.

The Project footprint will be maintained by DG New York CS IV, LLC personnel. The Applicant understands that it is the owners' and operators' responsibility to maintain the facility and to ensure that the grounds are free of litter and debris. The Applicant also will provide grass maintenance and weed treatment around the proposed Project site, including the areas inside and outside the fenced area. During periodic maintenance and inspection of the solar energy facility, the technicians and maintenance staff will also ensure the fence is well-maintained.

(6) Does not cause unsuitable effects on highway traffic and safety with adequate access to protect streets from undue congestion and hazard.

As aforementioned, the Project will be designed to consider the safe and efficient movement of vehicles within the site and the surrounding areas. The area in which the Project will be located may see a slight increase in a traffic activity at the Project site during construction; however, once commercial operation is achieved, traffic will be negligible, consisting of the occasional maintenance vehicle during servicing and maintenance of the facility as needed. The solar facility's proposed 20-foot-wide access road will be south of Riley Road (Attachment 7).

8.0 Town of Cortlandville Aquifer Protection District Special Permit Conditions

The Applicant has considered the submittal requirements for the Aquifer Protection District Special Permit noted in the Zoning Ordinance at §178-45.Restrictions and Requirements These requirements are discussed as follows:

A. Prohibitive uses and activities.

(1) The discharge, land application or disposal of any hazardous material, toxic substance or radioactive material.

For the construction of the proposed Project, debris and waste will be disposed in accordance with local, state, and federal rules and regulations. The proposed Project will not involve the discharge, land application or disposal of any hazardous material, toxic substance or radioactive material.

(2) The production or processing of bulk quantities of any hazardous material or toxic substance is prohibited.

The proposed Project will not involve the production or processing of any hazardous material or toxic substance.

(3) Pesticide storage.

a. The open storage of pesticides, herbicides, fungicides and artificial fertilizers within 50 feet linear distance of any watercourse in Area III is prohibited.

b. The open storage of pesticides, herbicides, or fungicides is prohibited in Areas I and II; all storage of such material is prohibited unless any necessary authorization has been obtained from the New York State Department of Environmental Conservation as provided in Article 33 of the New York State Environmental Conservation Law.

The proposed Project will not involve the onsite storage of any pesticides, herbicides, fungicides or artificial fertilizers.

(4) The dumping or disposing of snow or ice collected off-site from roadways or parking areas into or within 50 feet linear distance of any watercourse.

The Applicant would comply with these requirements.

(5) Storage of coal or chloride salts.

a. The open storage of coal or chloride salts within 50 feet linear distance of any watercourse in Area III is prohibited.

b. The bulk storage of coal or chloride salts is prohibited in Areas I and II except in a watertight ventilated structure constructed on an impervious surface. Any outside area used for loading, handling or mixing shall be designed so as to prevent seepage and runoff from entering the groundwater or any watercourse.

The proposed Project would not involve the storage of coal or chloride salts.

(6) Any form of underground injection of hazardous materials or toxic substances is prohibited.

The proposed Project would not involve underground injection of hazardous materials or toxic substances.

(7) Gas stations, solid waste disposal facilities and junkyards are prohibited in Areas I and II.

The proposed Project will not include any gas stations, solid waste disposal facilities, or junkyards.

(8) Single-family houses using septic tanks on lots of less than 30,000 feet are prohibited.

(9) Two-family houses using septic tanks.

a. Two-family houses using septic tanks on lots of less than 45,000 square feet are prohibited.

b. All plans for two-family houses using septic tanks require the approval of the Cortland County Health Department.

(10) Multifamily houses using septic tanks are prohibited.

The proposed Project will not include any single-family or multi-family housing.

(11) All prohibited uses and activities associated with industrial development as per § 178-77 of this chapter.

The proposed Project will not involve any of the industrial activities described in § 178-77. Activities in industrial facilities.

(12) The use of septic system cleaners which contain toxic substances or hazardous materials.

(13) The disposal of toxic substances or hazardous materials by means of discharge to a septic system.

As described herein, no on-site water supplies or sanitary sewage disposal facilities are needed. The proposed Project will be designed to account for appropriate wastewater disposal during construction and operation.

B. Other requirements.

(1) Petroleum bulk storage facilities installed above and below ground require permits and are subject to compliance with those standards described in Articles XX, XXI and XXII of the Sanitary Code of the Cortland County Health District.

The proposed Project will not include any petroleum bulk storage facilities.

(2) Bulk storage of toxic substances or hazardous materials is subject to compliance with Article XVIII of the Sanitary Code of the Cortland County Health District.

The proposed Project will not involve the storage of toxic substances or hazardous materials

(3) Quarries, gravel mining and excavations are permitted in accordance with § 178-116 of this chapter except where on-site activities violate the provisions of §§ 178-45 and 178-46 herein.

a. Operations which commence on or after the effective date of these regulations shall install a minimum of one groundwater monitoring well in a direction upgradient from on-site activities and one groundwater monitoring well in a direction downgradient from on-site activities. The specific location of these groundwater monitoring wells shall be determined by a professional geologist, hydrogeologist, engineer, or other qualified expert trained and experienced in hydrogeology.

b. Frequency of required water quality sampling from monitoring wells shall be determined on a site-specific basis.

c. Access to monitoring wells shall be provided to employees of the Cortland County Health Department for purposes of any additional water quality sampling deemed appropriate.

The proposed Project will not include any quarries or gravel mining or excavations.

(4) Vehicular servicing, including but not limited to automotive repair stations, body shops and rustproofing operations, is allowed within the Aquifer Protection District, provided that the following requirements are met:

- ***a. Floor drains must be connected to a holding tank or sanitary sewer equipped with an oil and grit separating tank.***
- ***b. Wastes collected in a holding tank must be disposed of through a licensed waste hauler.***
- ***c. Waste degreasing solvents must be stored in drums or a holding tank and disposed of through a licensed waste hauler.***
- ***d. Waste oil must be stored in tanks or drums for disposal by a licensed waste hauler.***
- ***e. Storage facilities for tanks and/or drums require coated concrete floors and dikes to retain accidental spills or leaks; a permanent roof to protect tanks or drums and to prevent precipitation from entering dikes. Drums should be sealed, and tanks and drums must be located away from floor drains.***
- ***f. Large drip pans should be kept beneath drums which have spigots and are stored in horizontal position an racks.***
- ***g. Potentially contaminated scrap, including but not limited to scrap parts, batteries and used filters shall be stored in proper containers to prevent environmental release of contaminants.***

The proposed Project will not involve the servicing of vehicles.

(5) Pesticides.

- ***a. Application of pesticides, herbicides fungicides, or chemical fertilizers shall be performed in accordance with the recommendations and label of the manufacturer.***
- ***b. Property owners who enlist the services of a commercial pesticide, fungicide, or herbicide applicator shall ensure that the applicator is certified and licensed by the New York State Department of Conservation.***

The Applicant will comply with the above requirements if pesticides are used at the proposed Project site.

(6) Conversion of a one-family house using a septic tank to a two-family house using a septic tank requires the approval of the Cortland County Health Department.

The proposed Project will not involve new or conversion of existing housing.

(7) Site plans for all proposed industrial and commercial uses shall be accompanied by a detailed and complete description of the anticipated uses and their operation as per Article XIII of this chapter.

A detailed description of the proposed Project is included in Section 3.0 Project Overview of this narrative.

(8) Dry wells connected to drains from buildings require the approval of the Cortland County Health Department.

The proposed Project will not involve the creation of new or modification of existing dry wells.

(9) Whenever there is a question as to the groundwater contamination potential of a proposed use, the expert opinion of the United States Environmental Protection Agency (USEPA), the New York State Department of Environmental Conservation (NYSDEC), and the State and County Health Departments may be requested.

The Applicant will work with the Town Board to provide necessary information to obtain the opinion of appropriate federal, state, or local agencies.

9.0 Development of the Project

The Applicant looks forward to working with the Town of Cortlandville on the development of the proposed Project, as it represents 21st century technology that is designed to integrate smoothly into the community and be a 'good neighbor' to nearby residences, while meeting the energy needs of hundreds of community homes through the production of a clean and renewable energy source.

Attachment 5 – Full Environmental Assessment Form

Full Environmental Assessment Form
Part 1 - Project and Setting

Instructions for Completing Part 1

Part 1 is to be completed by the applicant or project sponsor. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification.

Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information; indicate whether missing information does not exist, or is not reasonably available to the sponsor; and, when possible, generally describe work or studies which would be necessary to update or fully develop that information.

Applicants/sponsors must complete all items in Sections A & B. In Sections C, D & E, most items contain an initial question that must be answered either "Yes" or "No". If the answer to the initial question is "Yes", complete the sub-questions that follow. If the answer to the initial question is "No", proceed to the next question. Section F allows the project sponsor to identify and attach any additional information. Section G requires the name and signature of the applicant or project sponsor to verify that the information contained in Part 1is accurate and complete.

A. Project and Applicant/Sponsor Information.

Name of Action or Project: DG New York CS IV, LLC -- Riley Road Solar and Energy Storage		
Project Location (describe, and attach a general location map): Riley Road, Town of Cortlandville, Cortland County, New York (see Attachment F.1 figures)		
Brief Description of Proposed Action (include purpose or need): See Attachment F.2		
Name of Applicant/Sponsor: DG New York CS IV, LLC	Telephone: 561-694-3842 E-Mail: adam.siegelstein@nexteraenergy.com	
Address: 700 Universe Blvd. A1A/JB		
City/PO: Juno Beach	State: FL	Zip Code: 33408
Project Contact (if not same as sponsor; give name and title/role): Janet Ward, Project Manger	Telephone: 914-256-7644 E-Mail: janet.ward@nexteraenergy.com	
Address: Same as sponsor		
City/PO:	State:	Zip Code:
Property Owner (if not same as sponsor): Forbes Realty LLC	Telephone: 607-345-0723 E-Mail:	
Address: 5051 Forbes Road		
City/PO: Cortland	State: NY	Zip Code: 13045

B. Government Approvals

B. Government Approvals, Funding, or Sponsorship. ("Funding" includes grants, loans, tax relief, and any other forms of financial assistance.)			
Government Entity		**If Yes: Identify Agency and Approval(s) Required**	**Application Date (Actual or projected)**
a. City Counsel, Town Board, or Village Board of Trustees	☑ Yes ☐ No	Site Plan approval, Conditional Permit	
b. City, Town or Village Planning Board or Commission	☑ Yes ☐ No	Site Plan approval, Conditional Permit, Aquifer Protection District Special Permit	
c. City, Town or Village Zoning Board of Appeals	☐ Yes ☑ No		
d. Other local agencies	☑ Yes ☐ No	Town may refer Site Plan to other officials/agencies for review	
e. County agencies	☑ Yes ☐ No	Cortland County Planning Board	
f. Regional agencies	☐ Yes ☑ No		
g. State agencies	☑ Yes ☐ No	SPDES General Construction Permit NOI; others undetermined	
h. Federal agencies	☐ Yes ☑ No	Undetermined	

i. Coastal Resources.

i. Is the project site within a Coastal Area, or the waterfront area of a Designated Inland Waterway? ☐ Yes ☑ No

ii. Is the project site located in a community with an approved Local Waterfront Revitalization Program? ☐ Yes ☑ No

iii. Is the project site within a Coastal Erosion Hazard Area? ☐ Yes ☑ No

C. Planning and Zoning

C.1. Planning and zoning actions.

Will administrative or legislative adoption, or amendment of a plan, local law, ordinance, rule or regulation be the only approval(s) which must be granted to enable the proposed action to proceed? ☐ Yes ☑ No

- **If Yes,** complete sections C, F and G.
- **If No,** proceed to question C.2 and complete all remaining sections and questions in Part 1

C.2. Adopted land use plans.

a. Do any municipally- adopted (city, town, village or county) comprehensive land use plan(s) include the site where the proposed action would be located? ☑ Yes ☐ No

If Yes, does the comprehensive plan include specific recommendations for the site where the proposed action would be located? ☐ Yes ☑ No

b. Is the site of the proposed action within any local or regional special planning district (for example: Greenway; Brownfield Opportunity Area (BOA); designated State or Federal heritage area; watershed management plan; or other?) ☑ Yes ☐ No

If Yes, identify the plan(s):

NYS Major Basins: Upper Susquehanna (per NYSDEC Environmental Resource Mapper); Cortland Brownfield Opportunity Area

c. Is the proposed action located wholly or partially within an area listed in an adopted municipal open space plan, or an adopted municipal farmland protection plan? ☑ Yes ☐ No

If Yes, identify the plan(s):

Cortlandville Agriculture and Farmland Protection Plan

C.3. Zoning

a. Is the site of the proposed action located in a municipality with an adopted zoning law or ordinance. ☑ Yes ☐ No
If Yes, what is the zoning classification(s) including any applicable overlay district?
Agricultural (AG) Zoning District. As well, Zoning chapter 178-123.3, Solar energy systems, contains zoning requirements for solar facilities.

b. Is the use permitted or allowed by a special or conditional use permit? ☑ Yes ☐ No

c. Is a zoning change requested as part of the proposed action? ☐ Yes ☑ No
If Yes,
i. What is the proposed new zoning for the site? _____

C.4. Existing community services.

a. In what school district is the project site located? McGraw Central

b. What police or other public protection forces serve the project site?
Cortland County Sheriff, NY State Police

c. Which fire protection and emergency medical services serve the project site?
Cortlandville Fire Dept, Homer Fire Dept, McGraw Fire Dept., TLC EMS Inc

d. What parks serve the project site?
Yaman Park, Dexter Park

D. Project Details

D.1. Proposed and Potential Development

a. What is the general nature of the proposed action (e.g., residential, industrial, commercial, recreational; if mixed, include all components)? Industrial

b. a. Total acreage of the site of the proposed action? 52 acres
b. Total acreage to be physically disturbed? 36 acres
c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? 52 acres

c. Is the proposed action an expansion of an existing project or use? ☐ Yes ☑ No
i. If Yes, what is the approximate percentage of the proposed expansion and identify the units (e.g., acres, miles, housing units, square feet)? % _____ Units: _____

d. Is the proposed action a subdivision, or does it include a subdivision? ☐ Yes ☑ No
If Yes,
i. Purpose or type of subdivision? (e.g., residential, industrial, commercial; if mixed, specify types)

ii. Is a cluster/conservation layout proposed? ☐ Yes ☐ No
iii. Number of lots proposed? _____
iv. Minimum and maximum proposed lot sizes? Minimum _____ Maximum _____

e. Will the proposed action be constructed in multiple phases? ☐ Yes ☑ No
i. If No, anticipated period of construction: 4.5 months
ii. If Yes:
- Total number of phases anticipated _____
- Anticipated commencement date of phase 1 (including demolition) _____ month _____ year
- Anticipated completion date of final phase _____ month _____year
- Generally describe connections or relationships among phases, including any contingencies where progress of one phase may determine timing or duration of future phases: _____

f. Does the project include new residential uses? ☐ Yes ☑ No

If Yes, show numbers of units proposed.

	One Family	Two Family	Three Family	Multiple Family (four or more)
Initial Phase				
At completion of all phases				

g. Does the proposed action include new non-residential construction (including expansions)? ☑ Yes ☐ No

If Yes,

i. Total number of structures See Att F.2

ii. Dimensions (in feet) of largest proposed structure: SeeAttF.2 height; _____ width; and _____ length

iii. Approximate extent of building space to be heated or cooled: _____ square feet

h. Does the proposed action include construction or other activities that will result in the impoundment of any liquids, such as creation of a water supply, reservoir, pond, lake, waste lagoon or other storage? ☐ Yes ☑ No

If Yes,

i. Purpose of the impoundment: _____

ii. If a water impoundment, the principal source of the water: ☐ Ground water ☐ Surface water streams ☐ Other specify:

_____

iii. If other than water, identify the type of impounded/contained liquids and their source.

_____

iv. Approximate size of the proposed impoundment. Volume: _____ million gallons; surface area: _____ acres

v. Dimensions of the proposed dam or impounding structure: _____ height; _____ length

vi. Construction method/materials for the proposed dam or impounding structure (e.g., earth fill, rock, wood, concrete):

_____

D.2. Project Operations

a. Does the proposed action include any excavation, mining, or dredging, during construction, operations, or both? ☐ Yes ☑ No
(Not including general site preparation, grading or installation of utilities or foundations where all excavated materials will remain onsite)

If Yes:

i .What is the purpose of the excavation or dredging? _____

ii. How much material (including rock, earth, sediments, etc.) is proposed to be removed from the site?

- Volume (specify tons or cubic yards): _____
- Over what duration of time? _____

iii. Describe nature and characteristics of materials to be excavated or dredged, and plans to use, manage or dispose of them.

_____

_____

iv. Will there be onsite dewatering or processing of excavated materials? ☐ Yes ☐ No
If yes, describe. _____

_____

v. What is the total area to be dredged or excavated? _____ acres

vi. What is the maximum area to be worked at any one time? _____ acres

vii. What would be the maximum depth of excavation or dredging? _____ feet

viii. Will the excavation require blasting? ☐ Yes ☐ No

ix. Summarize site reclamation goals and plan: _____

_____

_____

b. Would the proposed action cause or result in alteration of, increase or decrease in size of, or encroachment into any existing wetland, waterbody, shoreline, beach or adjacent area? ☑ Yes ☐ No

If Yes:

i. Identify the wetland or waterbody which would be affected (by name, water index number, wetland map number or geographic description): The design will avoid wetland and waterbodies to the extent practicable. See Attachment F.3.

_____

ii. Describe how the proposed action would affect that waterbody or wetland, e.g. excavation, fill, placement of structures, or alteration of channels, banks and shorelines. Indicate extent of activities, alterations and additions in square feet or acres:
See Attachment F.3

iii. Will the proposed action cause or result in disturbance to bottom sediments? ☐ Yes ☑ No
If Yes, describe: _____

iv. Will the proposed action cause or result in the destruction or removal of aquatic vegetation? ☐ Yes ☑ No
If Yes:

- acres of aquatic vegetation proposed to be removed: _____
- expected acreage of aquatic vegetation remaining after project completion: _____
- purpose of proposed removal (e.g. beach clearing, invasive species control, boat access): _____
- proposed method of plant removal: _____
- if chemical/herbicide treatment will be used, specify product(s): _____

v. Describe any proposed reclamation/mitigation following disturbance: _____

c. Will the proposed action use, or create a new demand for water? ☐ Yes ☑ No
If Yes:

i. Total anticipated water usage/demand per day: _____ gallons/day

ii. Will the proposed action obtain water from an existing public water supply? ☐ Yes ☐ No
If Yes:

- Name of district or service area: _____
- Does the existing public water supply have capacity to serve the proposal? ☐ Yes ☐ No
- Is the project site in the existing district? ☐ Yes ☐ No
- Is expansion of the district needed? ☐ Yes ☐ No
- Do existing lines serve the project site? ☐ Yes ☐ No

iii. Will line extension within an existing district be necessary to supply the project? ☐ Yes ☐ No
If Yes:

- Describe extensions or capacity expansions proposed to serve this project: _____
- Source(s) of supply for the district: _____

iv. Is a new water supply district or service area proposed to be formed to serve the project site? ☐ Yes ☐ No
If, Yes:

- Applicant/sponsor for new district: _____
- Date application submitted or anticipated: _____
- Proposed source(s) of supply for new district: _____

v. If a public water supply will not be used, describe plans to provide water supply for the project: _____

vi. If water supply will be from wells (public or private), what is the maximum pumping capacity: _____ gallons/minute.

d. Will the proposed action generate liquid wastes? ☐ Yes ☑ No
If Yes:

i. Total anticipated liquid waste generation per day: _____ gallons/day

ii. Nature of liquid wastes to be generated (e.g., sanitary wastewater, industrial; if combination, describe all components and approximate volumes or proportions of each): _____

iii. Will the proposed action use any existing public wastewater treatment facilities? ☐ Yes ☐ No
If Yes:

- Name of wastewater treatment plant to be used: _____
- Name of district: _____
- Does the existing wastewater treatment plant have capacity to serve the project? ☐ Yes ☐ No
- Is the project site in the existing district? ☐ Yes ☐ No
- Is expansion of the district needed? ☐ Yes ☐ No

- Do existing sewer lines serve the project site? ☐Yes ☐No
- Will a line extension within an existing district be necessary to serve the project? ☐Yes ☐No

If Yes:

- Describe extensions or capacity expansions proposed to serve this project: _____

_____

_____

iv. Will a new wastewater (sewage) treatment district be formed to serve the project site? ☐Yes ☐No

If Yes:

- Applicant/sponsor for new district: _____
- Date application submitted or anticipated: _____
- What is the receiving water for the wastewater discharge? _____

v. If public facilities will not be used, describe plans to provide wastewater treatment for the project, including specifying proposed receiving water (name and classification if surface discharge or describe subsurface disposal plans):

_____

_____

vi. Describe any plans or designs to capture, recycle or reuse liquid waste: _____

_____

_____

e. Will the proposed action disturb more than one acre and create stormwater runoff, either from new point sources (i.e. ditches, pipes, swales, curbs, gutters or other concentrated flows of stormwater) or non-point source (i.e. sheet flow) during construction or post construction? ☑Yes ☐No

If Yes:

i. How much impervious surface will the project create in relation to total size of project parcel?

_____ Square feet or 0.59 acres (impervious surface)

_____ Square feet or 52 acres (parcel size)

ii. Describe types of new point sources. No new point sources.

_____

iii. Where will the stormwater runoff be directed (i.e. on-site stormwater management facility/structures, adjacent properties, groundwater, on-site surface water or off-site surface waters)?

Temporary runoff from construction will be discharged on-site and controlled by stormwater and sediment/erosion control best management practices. Sheet flow from solar panels will infiltrate ground surface or be directed to existing wetland, drainage, and/or swale areas. See Attachment F.3.

- If to surface waters, identify receiving water bodies or wetlands: _____

See Sections D.2.b and E.2.h and Attachment F.3.

_____

- Will stormwater runoff flow to adjacent properties? ☐Yes ☑No

iv. Does the proposed plan minimize impervious surfaces, use pervious materials or collect and re-use stormwater? ☑Yes ☐No

f. Does the proposed action include, or will it use on-site, one or more sources of air emissions, including fuel combustion, waste incineration, or other processes or operations? ☑Yes ☐No

If Yes, identify:

i. Mobile sources during project operations (e.g., heavy equipment, fleet or delivery vehicles)

Vehicles for occasional maintenance of facility equipment and lawn & landscaping equipment for seasonal grass cutting. See Attachment F.4.

ii. Stationary sources during construction (e.g., power generation, structural heating, batch plant, crushers)

None

iii. Stationary sources during operations (e.g., process emissions, large boilers, electric generation)

None

g. Will any air emission sources named in D.2.f (above), require a NY State Air Registration, Air Facility Permit, or Federal Clean Air Act Title IV or Title V Permit? ☐Yes ☑No

If Yes:

i. Is the project site located in an Air quality non-attainment area? (Area routinely or periodically fails to meet ambient air quality standards for all or some parts of the year) ☐Yes ☐No

ii. In addition to emissions as calculated in the application, the project will generate:

- _____Tons/year (short tons) of Carbon Dioxide (CO_2)
- _____Tons/year (short tons) of Nitrous Oxide (N_2O)
- _____Tons/year (short tons) of Perfluorocarbons (PFCs)
- _____Tons/year (short tons) of Sulfur Hexafluoride (SF_6)
- _____Tons/year (short tons) of Carbon Dioxide equivalent of Hydroflourocarbons (HFCs)
- _____Tons/year (short tons) of Hazardous Air Pollutants (HAPs)

h. Will the proposed action generate or emit methane (including, but not limited to, sewage treatment plants, landfills, composting facilities)? ☐Yes ☑No

If Yes:

i. Estimate methane generation in tons/year (metric): _____

ii. Describe any methane capture, control or elimination measures included in project design (e.g., combustion to generate heat or electricity, flaring): _____

_____

i. Will the proposed action result in the release of air pollutants from open-air operations or processes, such as quarry or landfill operations? ☐Yes ☑No

If Yes: Describe operations and nature of emissions (e.g., diesel exhaust, rock particulates/dust):

_____

_____

j. Will the proposed action result in a substantial increase in traffic above present levels or generate substantial new demand for transportation facilities or services? ☑Yes ☐No

If Yes:

i. When is the peak traffic expected (Check all that apply): ☐Morning ☐Evening ☐Weekend

☑ Randomly between hours of 7 a.m. to 7 p.m..

ii. For commercial activities only, projected number of truck trips/day and type (e.g., semi trailers and dump trucks): _____

Intermittent increased truck trips during construction for delivery of materials/supplies. No increase in traffic during operations.

iii. Parking spaces: Existing Not applicable Proposed _____ Net increase/decrease _____

iv. Does the proposed action include any shared use parking? ☐Yes ☑No

v. If the proposed action includes any modification of existing roads, creation of new roads or change in existing access, describe:

Non-public access road to be constructed from Riley Road into solar facility for maintenance.

vi. Are public/private transportation service(s) or facilities available within ½ mile of the proposed site? ☐Yes ☑No

vii Will the proposed action include access to public transportation or accommodations for use of hybrid, electric or other alternative fueled vehicles? ☐Yes ☑No

viii. Will the proposed action include plans for pedestrian or bicycle accommodations for connections to existing pedestrian or bicycle routes? ☐Yes ☑No

k. Will the proposed action (for commercial or industrial projects only) generate new or additional demand for energy? ☐Yes ☑No

If Yes:

i. Estimate annual electricity demand during operation of the proposed action: _____

ii. Anticipated sources/suppliers of electricity for the project (e.g., on-site combustion, on-site renewable, via grid/local utility, or other):

_____

iii. Will the proposed action require a new, or an upgrade, to an existing substation? ☐Yes ☐No

l. Hours of operation. Answer all items which apply.

i. During Construction:

- Monday - Friday: 7 a.m. - 7 p.m.
- Saturday: 7 a.m. - 7 p.m.
- Sunday: 9 a.m. - 7 p.m.
- Holidays: None

ii. During Operations:

- Monday - Friday: 24 hours
- Saturday: 24 hours
- Sunday: 24 hours
- Holidays: 24 hours

m. Will the proposed action produce noise that will exceed existing ambient noise levels during construction, operation, or both? ☑ Yes ☐ No

If yes:

i. Provide details including sources, time of day and duration:

See Attachment F.5.

ii. Will the proposed action remove existing natural barriers that could act as a noise barrier or screen? ☐ Yes ☑ No

Describe: _____

n. Will the proposed action have outdoor lighting? ☐ Yes ☑ No

If yes:

i. Describe source(s), location(s), height of fixture(s), direction/aim, and proximity to nearest occupied structures:

ii. Will proposed action remove existing natural barriers that could act as a light barrier or screen? ☐ Yes ☐ No

Describe: _____

o. Does the proposed action have the potential to produce odors for more than one hour per day? ☐ Yes ☑ No

If Yes, describe possible sources, potential frequency and duration of odor emissions, and proximity to nearest occupied structures: _____

p. Will the proposed action include any bulk storage of petroleum (combined capacity of over 1,100 gallons) or chemical products 185 gallons in above ground storage or any amount in underground storage? ☐ Yes ☑ No

If Yes:

i. Product(s) to be stored _____

ii. Volume(s) _____ per unit time _____ (e.g., month, year)

iii. Generally, describe the proposed storage facilities: _____

q. Will the proposed action (commercial, industrial and recreational projects only) use pesticides (i.e., herbicides, insecticides) during construction or operation? ☑ Yes ☐ No

If Yes:

i. Describe proposed treatment(s):

No pesticide use during construction. If pesticides are used during operations, they will be used in accordance with local, state, and federal regulations. No open storage of pesticides.

ii. Will the proposed action use Integrated Pest Management Practices? ☑ Yes ☐ No

r. Will the proposed action (commercial or industrial projects only) involve or require the management or disposal of solid waste (excluding hazardous materials)? ☑ Yes ☐ No

If Yes:

i. Describe any solid waste(s) to be generated during construction or operation of the facility:

- Construction: See Attachment F.6 tons per _____ (unit of time)
- Operation : None tons per _____ (unit of time)

ii. Describe any proposals for on-site minimization, recycling or reuse of materials to avoid disposal as solid waste:

- Construction: See Attachment F.6
- Operation: Not applicable

iii. Proposed disposal methods/facilities for solid waste generated on-site:

- Construction: See Attachment F.6
- Operation: Not applicable

s. Does the proposed action include construction or modification of a solid waste management facility? ☐ Yes ☑ No

If Yes:

i. Type of management or handling of waste proposed for the site (e.g., recycling or transfer station, composting, landfill, or other disposal activities): _____

ii. Anticipated rate of disposal/processing:

- _____ Tons/month, if transfer or other non-combustion/thermal treatment, or
- _____ Tons/hour, if combustion or thermal treatment

iii. If landfill, anticipated site life: _____ years

t. Will the proposed action at the site involve the commercial generation, treatment, storage, or disposal of hazardous waste? ☐ Yes ☑ No

If Yes:

i. Name(s) of all hazardous wastes or constituents to be generated, handled or managed at facility: _____

ii. Generally describe processes or activities involving hazardous wastes or constituents: _____

iii. Specify amount to be handled or generated _____ tons/month

iv. Describe any proposals for on-site minimization, recycling or reuse of hazardous constituents: _____

v. Will any hazardous wastes be disposed at an existing offsite hazardous waste facility? ☐ Yes ☐ No

If Yes: provide name and location of facility: _____

If No: describe proposed management of any hazardous wastes which will not be sent to a hazardous waste facility:

E. Site and Setting of Proposed Action

E.1. Land uses on and surrounding the project site

a. Existing land uses.

i. Check all uses that occur on, adjoining and near the project site.

☐ Urban ☐ Industrial ☐ Commercial ☑ Residential (suburban) ☑ Rural (non-farm)
☐ Forest ☑ Agriculture ☐ Aquatic ☐ Other (specify): _____

ii. If mix of uses, generally describe:

The property is primarily agricultural. It is bounded largely by agricultural property and by Interstate 81 to the west.

b. Land uses and covertypes on the project site.

Land use or Covertype	Current Acreage	Acreage After Project Completion	Change (Acres +/-)
• Roads, buildings, and other paved or impervious surfaces	0	0.59	+0.59
• Forested	1	1	0
• Meadows, grasslands or brushlands (non-agricultural, including abandoned agricultural)	0	44.48	+44.48
• Agricultural (includes active orchards, field, greenhouse etc.)	50.92	5.0	-45.92
• Surface water features (lakes, ponds, streams, rivers, etc.)	0.03	0.03	0
• Wetlands (freshwater or tidal)	0.05	0.05	0
• Non-vegetated (bare rock, earth or fill)	0	0	0
• Other Describe: Pervious access road	0	0.85	+0.85

c. Is the project site presently used by members of the community for public recreation? ☐ Yes ☑ No

i. If Yes: explain: _____

d. Are there any facilities serving children, the elderly, people with disabilities (e.g., schools, hospitals, licensed day care centers, or group homes) within 1500 feet of the project site? ☑ Yes ☐ No

If Yes,

i. Identify Facilities:

OCM BOCES - Cortland Alternative School, Seven Valleys New Tech Academy

e. Does the project site contain an existing dam? ☐ Yes ☑ No

If Yes:

i. Dimensions of the dam and impoundment:

- Dam height: _____ feet
- Dam length: _____ feet
- Surface area: _____ acres
- Volume impounded: _____ gallons OR acre-feet

ii. Dam's existing hazard classification: _____

iii. Provide date and summarize results of last inspection:

f. Has the project site ever been used as a municipal, commercial or industrial solid waste management facility, or does the project site adjoin property which is now, or was at one time, used as a solid waste management facility? ☐ Yes ☑ No

If Yes:

i. Has the facility been formally closed? ☐ Yes ☐ No

- If yes, cite sources/documentation: _____

ii. Describe the location of the project site relative to the boundaries of the solid waste management facility:

iii. Describe any development constraints due to the prior solid waste activities: _____

g. Have hazardous wastes been generated, treated and/or disposed of at the site, or does the project site adjoin property which is now or was at one time used to commercially treat, store and/or dispose of hazardous waste? ☐ Yes ☑ No

If Yes:

i. Describe waste(s) handled and waste management activities, including approximate time when activities occurred:

h. Potential contamination history. Has there been a reported spill at the proposed project site, or have any remedial actions been conducted at or adjacent to the proposed site? ☐ Yes ☑ No

If Yes:

i. Is any portion of the site listed on the NYSDEC Spills Incidents database or Environmental Site Remediation database? Check all that apply: ☐ Yes ☑ No

☐ Yes – Spills Incidents database — Provide DEC ID number(s): _____

☐ Yes – Environmental Site Remediation database — Provide DEC ID number(s): _____

☐ Neither database

ii. If site has been subject of RCRA corrective activities, describe control measures: _____

iii. Is the project within 2000 feet of any site in the NYSDEC Environmental Site Remediation database? ☐ Yes ☑ No

If yes, provide DEC ID number(s): _____

iv. If yes to (i), (ii) or (iii) above, describe current status of site(s):

v. Is the project site subject to an institutional control limiting property uses? ☐ Yes ☐ No

- If yes, DEC site ID number: _____
- Describe the type of institutional control (e.g., deed restriction or easement): _____
- Describe any use limitations: _____
- Describe any engineering controls: _____
- Will the project affect the institutional or engineering controls in place? ☐ Yes ☐ No
- Explain: _____

E.2. Natural Resources On or Near Project Site

a. What is the average depth to bedrock on the project site? >6 feet

b. Are there bedrock outcroppings on the project site? ☐ Yes ☑ No
If Yes, what proportion of the site is comprised of bedrock outcroppings? _____ %

c. Predominant soil type(s) present on project site:

Mardin channery silt loam, 2-8%slo	36 %
Bath channery silt loam, 3-8% slope	26 %
Mardin channery silt loam, 8-15%sl	18 %

d. What is the average depth to the water table on the project site? Average: 2 feet

e. Drainage status of project site soils:

☑ Well Drained:	54 % of site
☑ Moderately Well Drained:	46 % of site
☐ Poorly Drained	_____ % of site

f. Approximate proportion of proposed action site with slopes:

☑ 0-10%:	79 % of site
☑ 10-15%:	10 % of site
☑ 15% or greater:	11 % of site

g. Are there any unique geologic features on the project site? ☐ Yes ☑ No
If Yes, describe: _____

h. Surface water features.

i. Does any portion of the project site contain wetlands or other waterbodies (including streams, rivers, ponds or lakes)? ☑ Yes ☐ No

ii. Do any wetlands or other waterbodies adjoin the project site? ☐ Yes ☑ No

If Yes to either *i* or *ii*, continue. If No, skip to E.2.i.

iii. Are any of the wetlands or waterbodies within or adjoining the project site regulated by any federal, state or local agency? ☑ Yes ☐ No

iv. For each identified regulated wetland and waterbody on the project site, provide the following information:

- Streams: Name _____ Classification _____
- Lakes or Ponds: Name _____ Classification _____
- Wetlands: Name See Attachment F.3. Approximate Size _____
- Wetland No. (if regulated by DEC) _____

v. Are any of the above water bodies listed in the most recent compilation of NYS water quality-impaired waterbodies? ☐ Yes ☑ No

If yes, name of impaired water body/bodies and basis for listing as impaired: _____

i. Is the project site in a designated Floodway? ☐ Yes ☑ No

j. Is the project site in the 100-year Floodplain? ☐ Yes ☑ No

k. Is the project site in the 500-year Floodplain? ☐ Yes ☑ No

l. Is the project site located over, or immediately adjoining, a primary, principal or sole source aquifer? ☑ Yes ☐ No
If Yes:

i. Name of aquifer: Principal aquifer, Primary aquifer, Sole source aquifer names: Cortland-Homer Preble SSA (per NYSDEC Environmental Resource Mapper)

m. Identify the predominant wildlife species that occupy or use the project site:

Canada goose; red-tailed hawk; common garter snake
songbirds (various); American toad; woodchuck
white-tailed deer; Eastern gray squirrel

n. Does the project site contain a designated significant natural community? ☐ Yes ☑ No

If Yes:

i. Describe the habitat/community (composition, function, and basis for designation): _____

ii. Source(s) of description or evaluation: _____

iii. Extent of community/habitat:

- Currently: _____ acres
- Following completion of project as proposed: _____ acres
- Gain or loss (indicate + or -): _____ acres

o. Does project site contain any species of plant or animal that is listed by the federal government or NYS as endangered or threatened, or does it contain any areas identified as habitat for an endangered or threatened species? ☑ Yes ☐ No

If Yes:

i. Species and listing (endangered or threatened): _____

See Attachment F.7.

p. Does the project site contain any species of plant or animal that is listed by NYS as rare, or as a species of special concern? ☐ Yes ☑ No

If Yes:

i. Species and listing: _____

See Attachment F.7.

q. Is the project site or adjoining area currently used for hunting, trapping, fishing or shell fishing? ☑ Yes ☐ No

If yes, give a brief description of how the proposed action may affect that use: _____

Fishing likely conducted at nearby streams. Not confirmed.

E.3. Designated Public Resources On or Near Project Site

a. Is the project site, or any portion of it, located in a designated agricultural district certified pursuant to Agriculture and Markets Law, Article 25-AA, Section 303 and 304? ☑ Yes ☐ No

If Yes, provide county plus district name/number: CORT001

b. Are agricultural lands consisting of highly productive soils present? ☑ Yes ☐ No

i. If Yes: acreage(s) on project site? 33 ac farmland of statewide importance, 13.5 ac prime farmland

ii. Source(s) of soil rating(s): Web Soil Survey / USDA Natural Resources Conservation Service

c. Does the project site contain all or part of, or is it substantially contiguous to, a registered National Natural Landmark? ☐ Yes ☑ No

If Yes:

i. Nature of the natural landmark: ☐ Biological Community ☐ Geological Feature

ii. Provide brief description of landmark, including values behind designation and approximate size/extent: _____

d. Is the project site located in or does it adjoin a state listed Critical Environmental Area? ☐ Yes ☑ No

If Yes:

i. CEA name: _____

ii. Basis for designation: _____

iii. Designating agency and date: _____

e. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on the National or State Register of Historic Places, or that has been determined by the Commissioner of the NYS Office of Parks, Recreation and Historic Preservation to be eligible for listing on the State Register of Historic Places? ☐ Yes ☑ No

If Yes:

i. Nature of historic/archaeological resource: ☐ Archaeological Site ☐ Historic Building or District

ii. Name: See Attachment F.8. (Information on archaeological sites is not permitted to be released to the public.)

iii. Brief description of attributes on which listing is based:

f. Is the project site, or any portion of it, located in or adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory? ☑ Yes ☐ No

g. Have additional archaeological or historic site(s) or resources been identified on the project site? ☐ Yes ☑ No

If Yes:

i. Describe possible resource(s): See Attachment F.8.

ii. Basis for identification:

h. Is the project site within fives miles of any officially designated and publicly accessible federal, state, or local scenic or aesthetic resource? ☑ Yes ☐ No

If Yes:

i. Identify resource: Yaman Park

ii. Nature of, or basis for, designation (e.g., established highway overlook, state or local park, state historic trail or scenic byway, etc.): Local park

iii. Distance between project and resource: 0.25 miles.

i. Is the project site located within a designated river corridor under the Wild, Scenic and Recreational Rivers Program 6 NYCRR 666? ☐ Yes ☑ No

If Yes:

i. Identify the name of the river and its designation:

ii. Is the activity consistent with development restrictions contained in 6NYCRR Part 666? ☐ Yes ☐ No

F. Additional Information

Attach any additional information which may be needed to clarify your project.

If you have identified any adverse impacts which could be associated with your proposal, please describe those impacts plus any measures which you propose to avoid or minimize them.

G. Verification

I certify that the information provided is true to the best of my knowledge.

Applicant/Sponsor Name Matthew G. Ulman Date 11/16/2020

Signature M G U Title Vice President

PRINT FORM

Section F. Additional Information

Attachment F.1 Project Figures

L:\Buffalo\NextEra_NY_Solar\Maps\MXD\Report\DesktopEnvReview\2020_04\RileyRoad_EnvironmentalResources.mxd 4/15/2020

KEY:

- Property Boundary
- Area of On-Site Trees
- Stream/River (NYSDEC)
- Stream/River (NHD)
- Wetland (NWI)
- 100-Year Flood Zone (Zone AE)
- City Boundary

Figure F.1
Environmental Resources
Riley Road DG Solar and Energy Storage Project
Cortland County, NY

0 200 400 Feet

N

Data Sources: Ecology and Environment, Inc. 2020; ESRI 2017; NYSDEC 2018; NYS ITS GIS Orthos - Cortland County 2018; USGS 2019; USFWS 2019; FEMA 2019

2020 NY GREENFIELD PV DESIGN - RILEY ROAD

1902 RILEY RD,
CORTLAND, NY 13045

PROJECT DATA

PARCEL INFORMATION

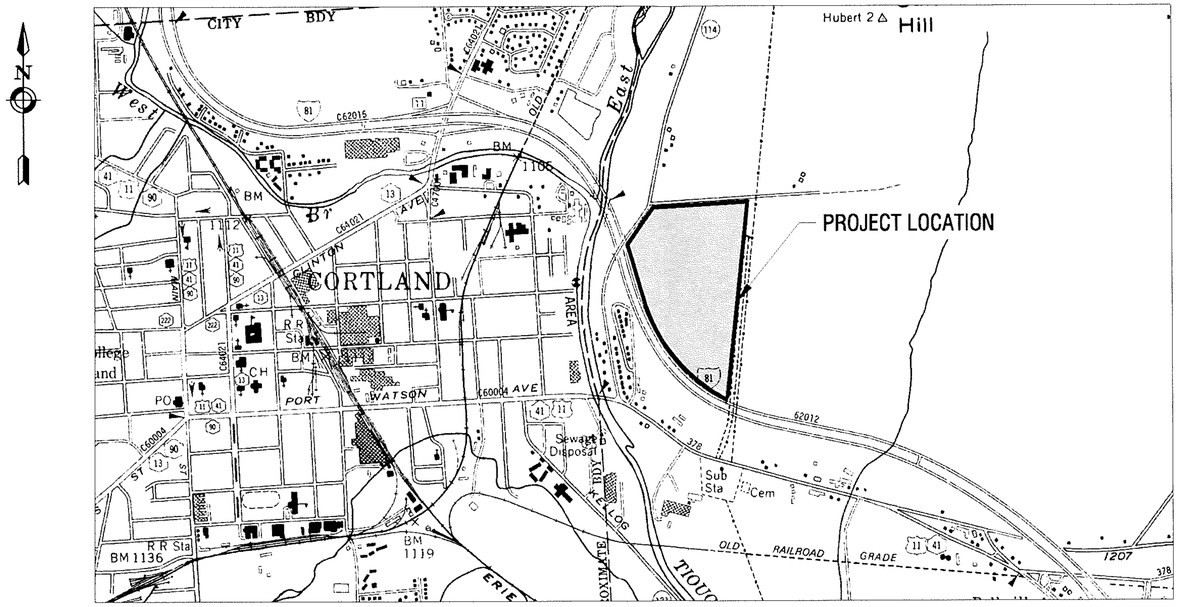
APPLICANT	NEXT ERA ENERGY
PARCEL ADDRESS	1902 RILEY RD, CORTLANDVILLE, NY 13045
TAX NUMBER	87 00-03-08 112
GPS COORDINATES	N: 42 604184° W: -76 153672°
AVERAGE SITE ELEVATION	1275 00
PARCEL AREA	52 05 ACRES
DISTURBANCE AREA	35 8 ACRES
EQUIPMENT PAD AREA	±11,400 SF
STAGING AREA	0 83 ACRES
FENCED AREA	34 24 ACRES
DRIVEN POST CROSS SECTIONAL AREA	±2 SF
DRIVEN POST QUANTITY	4,035
DRIVEN POST CROSS SECTIONAL AREA (TOTAL)	12,676 3 SF
ROAD LENGTH	±1,675 FT
SILT FENCE	±2,090 FT
CHAIN LINK FENCE	± 5,190 FT
GATE COUNT	2

SYSTEM SUMMARY (TOTAL)

SYSTEM AC SIZE (MW)	5 0
SYSTEM DC SIZE (MW)	7 5
MODULE COUNT	20,982
INVERTER COUNT	X
SWITCH GEAR COUNT	X
TRANSFORMER COUNT	X
EQUIPMENT PAD COUNT	2
UTILITY POLE COUNT	6

ZONING INFORMATION

	REQUIRED	PROPOSED
CODE APPLIED	TOWN OF CORTLAND	
WEBSITE	HTTPS://WWW.CORTLANDVILLE.ORG/PLANNING-ZONING/PAGES/ZONING-LAWS	
CLASSIFICATION	AGRICULTURAL DISTRICT	
FRONT SETBACK	75 FT	75 FT
SIDE SETBACK	100 FT	75 FT
REAR SETBACK	75 FT	100 FT
ENTRANCE WIDTH	-	20 FT
MAX FENCE HEIGHT	-	7 FT
STRUCTURE COVERAGE	20%	±19%
MIN LOT SIZE	2 AC	52 05 AC



LOCATION MAP
SCALE: N.T.S.

CIVIL DRAWING INDEX

C000	COVER SHEET	REV 0-0
C001	CONSTRUCTION NOTES	REV 0-0
C101	EXISTING CONDITIONS AND REMOVALS PLAN	REV 0-0
C102	EXISTING CONDITIONS AND REMOVALS PLAN	REV 0-0
C200	OVERALL SITE PLAN	REV 0-0
C201	SITE PLAN	REV 0-0
C202	SITE PLAN	REV 0-0
C501	EROSION & SEDIMENT CONTROL PLAN	REV 0-0
C502	EROSION & SEDIMENT CONTROL PLAN	REV 0-0
C601	LANDSCAPING PLAN	REV 0-0
C602	LANDSCAPING PLAN	REV 0-0
C701	CONSTRUCTION DETAILS	REV 0-0
C702	CONSTRUCTION DETAILS	REV 0-0
C703	CONSTRUCTION DETAILS	REV 0-0
C704	CONSTRUCTION DETAILS	REV 0-0

NEXTera ENERGY

NEXTERA ENERGY RESOURCES

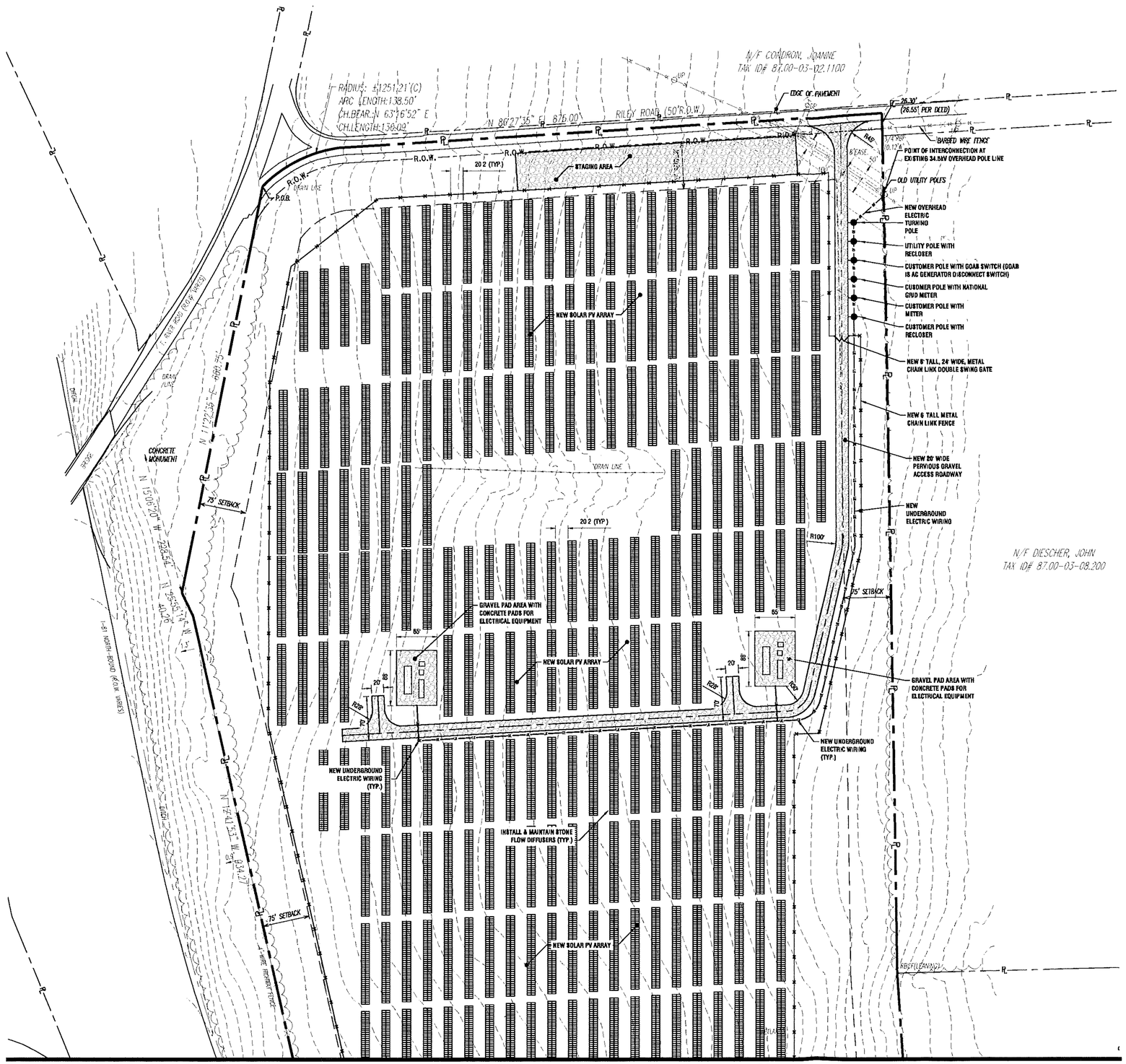
700 UNIVERSE BLVD.
JUNO BEACH, FL 33408
PROJECT NO: 2201200.08
NOVEMBER 2020

LaBella
Powered by partnership.
300 State Street, Suite 201
Rochester, NY 14614
585-454-6110
labellapc.com

ISSUED FOR REVIEW
NOVEMBER 2020

NEXTERA ENERGY RESOURCES
PROJECT NO: 2201200.08

2020 NY GREENFIELD PV DESIGN - RILEY ROAD
1902 RILEY RD, CORTLANDVILLE, NY 13045



2 C201 SITE PLAN
SCALE: 1" = 80

SITE NOTES

1. WELL COMPACTED SUBGRADE SHALL BE UTILIZED UNDERNEATH CONSTRUCTION OF PAVEMENT AND CONCRETE BASES
2. ALL STAKEOUT FOR THE PROPOSED SITE IMPROVEMENTS SHALL BE COMPLETED BY A NEW YORK STATE LICENSED LAND SURVEYOR.
3. IF ANY DISCREPANCIES ARE NOTED BETWEEN THESE CONSTRUCTION DOCUMENTS AND INFORMATION PROVIDED OR AN ERROR IS SUSPECT, IT SHALL BE IMMEDIATELY REPORTED TO THE CONSTRUCTION MANAGER AND LABELLA ASSOCIATES PROJECT MANAGER IN WRITING
4. ANY PROOF-ROOLING OF EXPOSED SUBBASE BY A MINIMUM 10 TON SMOOTH DRUM ROLLER SHALL BE DONE UNDER THE GUIDANCE OF, AND OBSERVED BY, QUALIFIED ENGINEERING PERSONNEL PRIOR TO PLACEMENT OF SUBBASE MATERIAL. THE ROLLER SHOULD BE OPERATED IN THE STATIC MODE AND COMPLETE AT LEAST TWO (2) PASSES OVER THE EXPOSED SUBGRADES

GENERAL UTILITY NOTES:

1. THE CONTRACTOR SHALL CONTACT DIG SAFE TO REQUEST A STAKEOUT PRIOR TO SOIL DISTURBANCE TO IDENTIFY LOCATION OF ALL EXISTING UTILITIES
2. THE CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES UNLESS OTHERWISE NOTED ON THE DRAWINGS

LEGEND

EXISTING	PROPOSED	DESCRIPTION
		WETLAND
		ROADWAY CENTERLINES
		PERVIOUS GRAVEL PAVEMENT
		CHAIN LINK FENCE
		TREELINE
		PROPERTY LINE
		SETBACK LINE
		EASEMENT LINE
		OVERHEAD ELECTRIC LINE
		UNDERGROUND ELECTRIC LINE
		UTILITY POLE W/O LIGHT

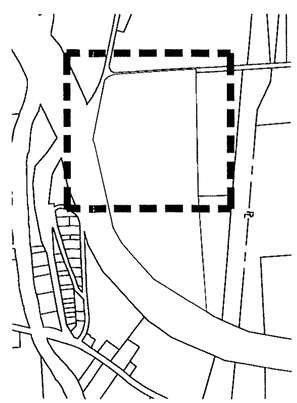
QUANTITIES TABLE

SITE AND UTILITY QUANTITIES

GRAVEL DRIVE	±37,085 SF
GRAVEL PAD	±9,700 SF
CONCRETE	±1,730 SF
6' TALL CHAIN LINK FENCING	±5,135 LF
12' CHAIN LINK DOUBLE SWING GATE	1
24' CHAIN LINK DOUBLE SWING GATE	1
UNDERGROUND ELECTRICAL WIRING	±1,390 LF
OVERHEAD ELECTRICAL WIRING	±215 LF
UTILITY POLES	6

NOTE:

QUANTITIES ARE PROVIDED FOR REFERENCE ONLY, CONTRACTOR TO VERIFY PROPOSED QUANTITIES BASED ON DESIGN PLANS OR TO BID



1 C201 KEY PLAN
SCALE: 1" = 750

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300 State Street, Suite 201
Rochester, NY 14614
585.454.6110
labellapc.com

STATE OF NEW YORK — JOHN KEVIN STEVENS — 094472 — LICENSED PROFESSIONAL ENGINEER

It is a violation of New York Education Law Article 145 Sec.7209, for any person, unless acting under the direction of a licensed architect, professional engineer, or land surveyor, to alter an item in any way. If an item bearing the seal of an architect, engineer, or land surveyor is altered, the altering architect, engineer, or land surveyor shall affix to the item their seal and notation "altered by" followed by their signature and date of such alteration, and a specific description of the alteration.

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NEXT ERA ENERGY
700 UNIVERSE BLVD.
JUNO BEACH, FL 33408

NEXTera ENERGY

2020 NY GREENFIELD PV DESIGN - RILEY ROAD 1
1902 RILEY RD.
CORTLANDVILLE, NY 13045

NO:	DATE:	DESCRIPTION:
Revisions		

PROJECT NUMBER: 2201200.08
DRAWN BY: JMA
REVIEWED BY: DG
ISSUED FOR: REVIEW
DATE: NOVEMBER 2020
DRAWING NAME:

SITE PLAN (SHEET 1 OF 2)

DRAWING NUMBER:

C201

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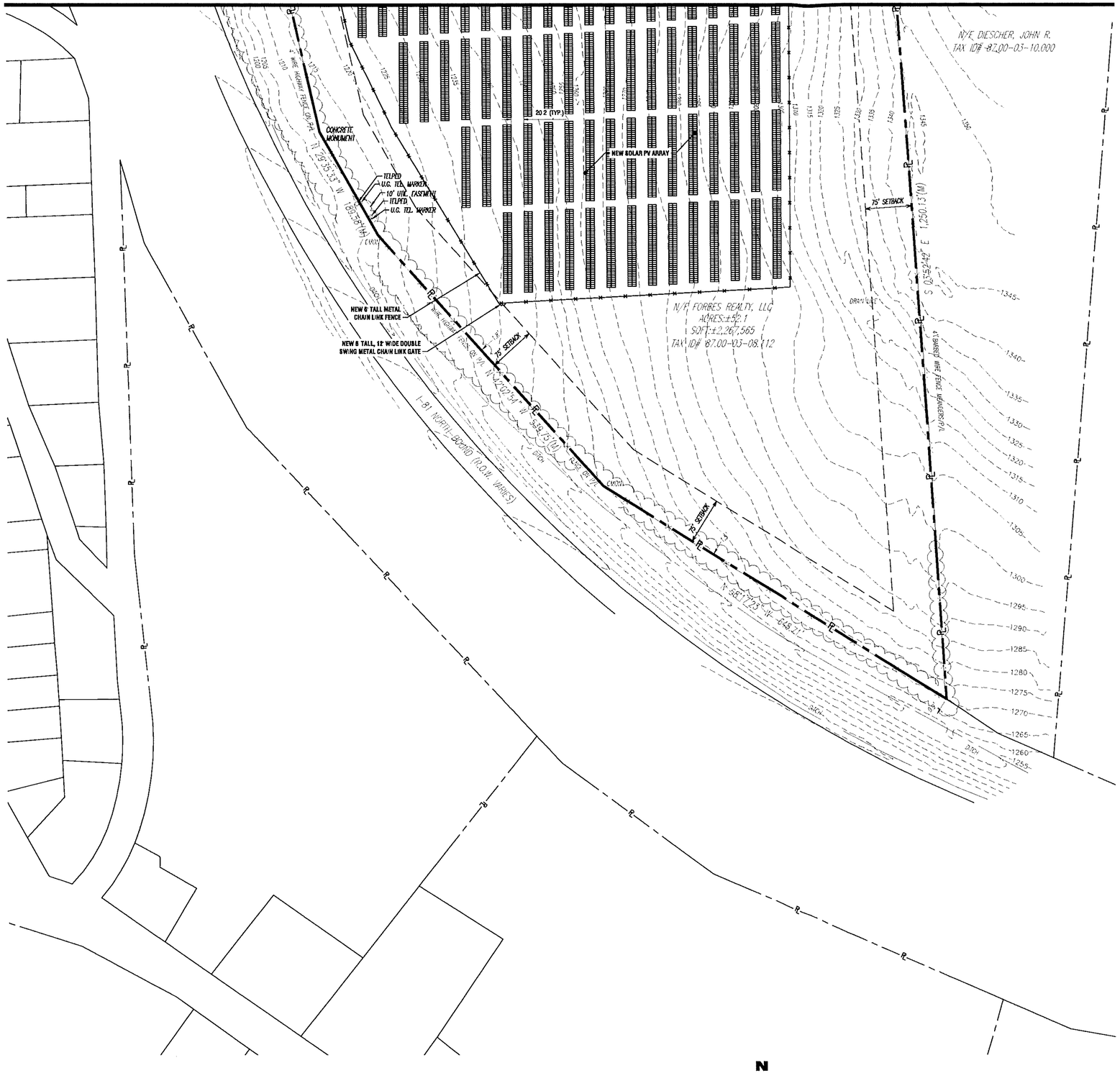
MATCH TO SHEET C-201



2 C202 SITE PLAN
SCALE: 1" = 80

SITE NOTES

1. WELL COMPACTED SUBGRADE SHALL BE UTILIZED UNDERNEATH CONSTRUCTION OF PAVEMENT AND CONCRETE BASES
2. ALL STAKEOUT FOR THE PROPOSED SITE IMPROVEMENTS SHALL BE COMPLETED BY A NEW YORK STATE LICENSED LAND SURVEYOR.
3. IF ANY DISCREPANCIES ARE NOTED BETWEEN THESE CONSTRUCTION DOCUMENTS AND INFORMATION PROVIDED OR AN ERROR IS SUSPECT, IT SHALL BE IMMEDIATELY REPORTED TO THE CONSTRUCTION MANAGER AND LABELLA ASSOCIATES PROJECT MANAGER IN WRITING
4. ANY PROOF-ROOLING OF EXPOSED SUBBASE BY A MINIMUM 10 TON SMOOTH DRUM ROLLER SHALL BE DONE UNDER THE GUIDANCE OF, AND OBSERVED BY, QUALIFIED ENGINEERING PERSONNEL PRIOR TO PLACEMENT OF SUBBASE MATERIAL. THE ROLLER SHOULD BE OPERATED IN THE STATIC MODE AND COMPLETE AT LEAST TWO (2) PASSES OVER THE EXPOSED SUBGRADES

GENERAL UTILITY NOTES:

1. THE CONTRACTOR SHALL CONTACT DIG SAFE TO REQUEST A STAKEOUT PRIOR TO SOIL DISTURBANCE TO IDENTIFY LOCATION OF ALL EXISTING UTILITIES.
2. THE CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES UNLESS OTHERWISE NOTED ON THE DRAWINGS

LEGEND

EXISTING	PROPOSED	DESCRIPTION
		WETLAND
		ROADWAY CENTERLINES
		PERVIOUS GRAVEL PAVEMENT
		CHAIN LINK FENCE
		TREELINE
		PROPERTY LINE
		SETBACK LINE
		EASEMENT LINE
		OVERHEAD ELECTRIC LINE
		UNDERGROUND ELECTRIC LINE
		UTILITY POLE W/O LIGHT

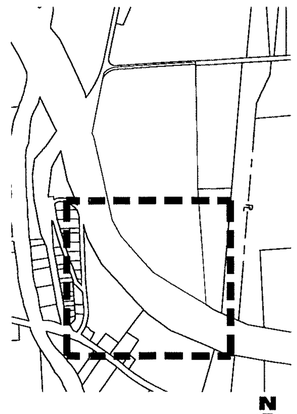
QUANTITIES TABLE

SITE AND UTILITY QUANTITIES

GRAVEL DRIVE	±37,085 SF
GRAVEL PAD	±9,700 SF
CONCRETE	±1,730 SF
6' TALL CHAIN LINK FENCING	±5,135 LF
12' CHAIN LINK DOUBLE SWING GATE	1
24' CHAIN LINK DOUBLE SWING GATE	1
UNDERGROUND ELECTRICAL WIRING	±1,390 LF
OVERHEAD ELECTRICAL WIRING	±215 LF
UTILITY POLES	6

NOTE:

QUANTITIES ARE PROVIDED FOR REFERENCE ONLY, CONTRACTOR TO VERIFY PROPOSED QUANTITIES BASED ON DESIGN PRIOR TO BID



1 C202 KEY PLAN
SCALE: 1" = 750

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STATE OF NEW YORK — JOHN MARK GRIFFIN — 084273 — LICENSED PROFESSIONAL ENGINEER

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NEXTera ENERGY

2020 NY GREENFIELD PV DESIGN - RILEY ROAD 1
1902 RILEY RD.
CORTLANDVILLE, NY 13045

NO:	DATE:	DESCRIPTION:
Revisions		

PROJECT NUMBER: 2201200.08
DRAWN BY: JMA
REVIEWED BY: DG
ISSUED FOR: REVIEW
DATE: NOVEMBER 2020
DRAWING NAME:

SITE PLAN (SHEET 2 OF 2)

DRAWING NUMBER:

C202

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Attachment F.2, Pertaining to Project Description

DG New York CS IV, LLC (DG New York) plans to construct/operate a 5 megawatt (MW) alternating current (AC) (7.5 MW direct current [DC]) solar photovoltaic facility with battery energy storage. The solar facility would be built within an approximately 52-acre property parcel (parcel ID 87.00-03-08.112) located between Riley Road and E. River Road, east of Interstate 81, in the Town of Cortlandville, Cortland County, New York. This SEQR FEAF addresses the 52-acre parcel, which is predominantly agricultural land (see Attachment F.1 figures).

Attachment F.1, Project Figures, includes preliminary site plans showing the footprint and proposed design for the solar facility. The design will be modified as necessary as the site becomes more defined. No trees will be cleared for the project. The facility will have over 20,000 solar panels of single-axis tracking design, mounted using driven post foundations or similar. The solar panels will be a maximum of approximately 10 to 12 feet in height. Concrete pad-mounted transformers/inverters will be installed in the approximate center of the facility. The DC power will be routed through the inverters (with battery energy storage) to convert it to AC power. Some shallow trenching for underground utility cables will be performed. The facility will be interconnected to the electrical grid via an existing 13.2 kilovolt (kV) overhead electrical line that crosses the northeastern corner of the parcel. Approximately 213 feet of new overhead electrical line and six new utility poles will be installed in this area to accomplish the interconnection. A new fence will be installed around the solar facility for security.

A 20-foot-wide pervious gravel access road (with 24-foot-wide access gates) will be constructed from Riley Road into the solar facility to result in approximately 1,675 feet of access road to maintain the solar facility. A temporary construction staging area will be located at the northern end of the property during construction and will be restored to existing conditions following construction. Existing trees outside the western edge of the property parcel will provide a partial visual buffer in that portion of the project area. Approximately 36 acres will be involved in the construction of the project, and the total project area is approximately 39 acres.

Construction will be performed in approximately 4.5 months, with construction beginning in 2021. The facility will require little maintenance and will be controlled and monitored remotely by DG New York. DG New York will ensure that grass under/near the panels is maintained and cut as necessary to reduce shade on the panels. After the approximately 25-year operational life, the solar facility will be decommissioned, dismantled, and removed.

The purpose of the proposed action is to generate renewable energy, fulfilling the need to supplement communities with distributed energy suppliers to increase the resilience of their energy supply. The proposed action also contributes to the state's renewable energy goals in its efforts to lessen energy production's impact on the environment and take incremental steps to respond to climate change.

Attachment F.3A, Pertaining to Section D.2.b, Encroachment into existing wetland and waterbody adjacent areas; Section D.2.e, stormwater runoff; Section E.1.b, Wetland acreages; Section E.2.h, Surface water features

Existing wetland mapping information for the approximately 52-acre property parcel was gathered using a search of the U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) database, Federal Emergency Management Agency (FEMA) information, and New York State Department of Environmental Conservation (NYSDEC) Environmental Resource Mapper, which are publicly available datasets. Additional waterbody information for the project area was gathered using a search of FEMA's flood zone mapping data, the NYSDEC Environmental Resource Mapper, and the National Hydrography Dataset (NHD).

Based on desktop review, no NWI or NYSDEC-mapped wetlands or streams were identified within the property (see Figure F.1). According to FEMA flood maps, the property is located in an area of minimal flood hazard.

Wetland and waterbody delineations were performed on June 9, 2020, for the approximately 52-acre property parcel. The results are shown on attached Figure F.3 and summarized in Table F.3-1 below.

The final project design will avoid and minimize impacts to federal- or state-regulated wetlands or waterbodies located within the project area to the extent practicable. DG New York anticipates that solar panels (considered "structures" by the U.S. Army Corps of Engineers [USACE]) will be installed in a portion of the one on-site wetland (delineated wetland W001) for a total of less than 0.05 acres of construction in wetlands (see the Attachment F.1 drawings and attached Figure F.3). A nominal number of fence posts will be installed in wetlands. The USACE allows panel support and fence post "structures" to be installed in wetlands without a Section 404 wetland permit as long as the supports are direct-driven or screwed in. Soil disturbance in wetlands will be limited to pile driving posts. No digging or trenching will be performed in wetlands, and no trees will be cut in wetlands. DG New York will consult/coordinate with the USACE regarding appropriate requirements for disturbing wetlands and waterbodies with the least amount of impact and in accordance with applicable regulations.

Table F.3-1 Results for Wetland/Waterbody Delineations Performed on the Property on June 9, 2020

Field Identifier	Type of Feature	Approximate Size
W-001	PEM	0.05 ac
Total Delineated Wetlands		**0.05 ac**
D-001	Drainage (Ephemeral)	97.1 feet long (194.3 sq ft)
D-002	Drainage (Ephemeral)	398.8 feet long (797.5 sq ft)
D-003	Drainage (Ephemeral)	136.1 feet long (272.3 sq ft)
Total Delineated Drainage Features		**632.0 feet long (1,264.1 sq ft; 0.029 acres)**

Key:
PEM = Palustrine emergent

L:\Buffalo\NextEra_NY_Solar\Maps\MXD\Report\WOTUS_Reports\Riley_Road\A-2 RileyRoad_Delineated_Features.mxd 6/30/2020

Data Point/Photograph Locations
- Upland
- Wetland
- Upland Verification Point

Delineated Wetland Boundary
- PEM

- Ditch
- Drainage
- Swale

- Property Parcel Boundary
- Township Boundary

Figure F.3
Riley Road DG Solar and Energy Storage Project
Delineated Features
Cortland County, NY

0 200 400 Feet

N

Data Sources: Ecology and Environment Inc. 2020, ESRI 2017, NYS ITS GIS Orthos Cortland County 2018

Attachment F.4, Pertaining to Section D.2.f, Sources of air emissions

Construction of the proposed solar facility would result in temporary emissions from construction equipment exhaust and crankcase emissions, particulate matter from vehicle exhaust and road dust, and worker vehicle exhaust. These construction emissions would be negligible and temporary, and therefore would have no impact on air quality.

Operation of the solar facility would result in negligible air emissions from sources such as vehicles used for occasional maintenance of solar facility equipment, and lawn and landscaping equipment used for seasonal grass cutting. Because the solar facility will provide renewable electricity to the existing grid, operation of the solar facility also could indirectly reduce emissions from non-renewable (e.g., fossil fuel) energy sources that are currently used to provide electricity to the grid.

Attachment F.5, Pertaining to Section D.2.m, Ambient noise levels

Construction of the solar facility would generate noise from the use of heavy construction equipment. Maximum noise levels during construction, if numerous construction vehicles are operating at once, are expected to generally be about 65 decibels using the A-weighted average (dBA) at 1,000 feet. A noise level of 65 dBA is a common daytime municipal noise limit. The Noise Control Ordinance of the Town of Cortlandville is contained in Chapter 109, *Noise Control*, of the town legislation. Section 109-5A states that:

- No person shall make noise exceeding 65 dBA, as measured from the real property boundary of the premises which is the source of the noise, from the hours 11:00 p.m. to 7:00 a.m., and 80 dBA at all other times.
- No person shall make noise exceeding 55 dBA, as measured from the real property boundary of any premises used as a dwelling (receiving property boundary) from the hours 11:00 p.m. to 7:00 a.m., and 65 dBA at all other times.

The Town of Cortlandville law for solar development (Article XIX, section 178-123.3, Solar energy systems, of Chapter 178, *Zoning,* of the town laws) does not contain specific requirements for noise from solar facilities.

The immediate surrounding area contains a residence on E. River Road (Route 114) to the north and one to the southwest, a residence on Riley Road to the northeast, and residences on Conable Avenue and Rural Avenue across Interstate 81 to the southwest of the property parcel. Potentially occupied buildings within 1,000 feet of the construction area include the residence on E. River Road to the north and approximately 23 residences on Conable Avenue, Rural Avenue, and E. River Road to the southwest. The closest dwellings to the main solar facility construction area would be approximately 500 feet away on Conable Avenue and Rural Avenue. Persons in those buildings could hear the construction noise, which will be temporary and intermittent and will only be noticeable if multiple heavy equipment vehicles are operating at once. Construction noise would occur in daylight hours on weekdays and possibly on weekend days, roughly between the hours of 7:00 a.m. and 7:00 p.m., at various times during the 4.5-month construction period and is anticipated to be compliant with the town noise law.

Operational noise will be generated by the inverters that are planned to be situated in the center of the solar facility. The closest residence to an inverter would be approximately 850 feet away on Conable Avenue. Inverter noise will dissipate rapidly with distance from the inverter and is expected to be negligible at the nearest receptors. Operational noise also will be generated by the motors used to drive the solar tracking function of the solar panels. The motors will operate at variable times during daylight hours to change the position of the panels to maximize exposure to the sun throughout the day. The motors will be situated throughout the solar facility such that each motor operates multiple panels. Approximately 240 tracker motors will be used. The closest buildings to a solar panel area would be on Conable Avenue and Rural Avenue, which would be approximately 500 feet from the nearest panels. Persons in those buildings could be exposed to the noise from tracker motors situated in the southern portion of the solar facility. Based on literature studies and noise assessments made for similar solar facilities, noise from the tracking motors is expected to be similar to ambient noise levels at those distances, and possibly somewhat discernible at the closest buildings. Any discernible noise would be low-level, random, and intermittent and would occur in daylight hours. A noise study has not been performed for this project. Any inverter or tracker motor noise should be further reduced by some exiting vegetation present outside the western and southwestern edges of the project area. This screening would function as a partial noise and visual buffer for the project.

Attachment F.6, Pertaining to Section D.2.r, Solid waste

Standard packaging materials for transporting solar panels to the project site consist of cardboard boxes, plastic wrappings, banding, and pallets. Large quantities of used cardboard boxes and plastic wrappings could result during the construction phase when the solar panels are unwrapped for installation, depending on how the panels are packaged. Cardboard typically would be recycled, and either picked up by the recycler or the construction contractor will transport it to the recycler. Pallets typically would be reused, and either picked up by the new user or removed from the job site for reuse by the construction contractor or solar panel vendor. Plastic wrappings and miscellaneous solid wastes from construction are typically disposed of as solid waste. The amount of solid waste generated from constructing the solar facility would be typical of any large construction project and would be routinely accommodated by local construction and demolition waste handling companies.

Approximately 300 cubic yards of solid waste will be generated for this 5 MW AC solar project during the 4.5-month construction timeframe. Approximately 60% of the generated solid waste will be recycled.

No solid waste would be generated during operation of the solar facility.

Attachment F.7, Pertaining to Section E.2.o, Federal or NYS endangered or threatened species

According to the United States Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) database, the New York State endangered (and federally protected) golden eagle (*Aquila chrysaetos*) and New York State threatened (and federally protected) bald eagle (*Haliaeetus leucocephalus*) could potentially occur in the project area. Of the bird species of conservation concern identified by the IPaC review as potentially present in the project area, the bobolink (*Dolichonyx oryzivorus*) and Canada warbler (*Cardellina canadensis*) are listed as high-priority species of greatest conservation need in New York State. The bobolink is also considered a grassland bird at-risk species in New York State. Although not threatened or endangered, high-priority species of greatest conservation need and grassland bird at-risk species may merit special attention and consideration if they are present at a project site.

A New York Natural Heritage Program (NHP) request was submitted to obtain information regarding the potential for rare or state-listed animals or plants at the project site. The NHP is administered by the NYSDEC. NYSDEC replied on May 7, 2020, that the New York State threatened brook floater (*Alasmidonta varicosa*) and green floater (*Lasmigona subviridis)* freshwater mussels have been documented in a stretch of the Tioghnioga River within 250 yards of the project site. These mussels are often found in running water such as streams, small rivers, creeks, and canals. The wetland survey conducted on June 9, 2020, delineated three ephemeral drainage features (ditches and swales) that are unlikely to house mussel populations due to their short duration of flowing water (see Figure F.3). Additionally, the final project design will avoid and minimize impacts to federal- or state-regulated wetlands or waterbodies located within the project area to the extent practicable. As such, DG New York anticipates that coordination/consultation with the USFWS and/or NYSDEC likely will not be needed regarding potential impacts on rare, threatened, or endangered species.

Attachment F.8, Pertaining to Section E.3.e-g, Cultural resources

The State Historic Preservation Office (SHPO) Cultural Resource Information System (CRIS) was reviewed to evaluate cultural resources with respect to the property parcel. This review indicated the following for aboveground historic resources (archaeological site information is not available for public review):

- The project site is not substantially contiguous to a building or district that is listed on the National or State Register of Historic Places, or that has been determined by the Commissioner of the NYS Office of Parks, Recreation, and Historic Preservation to be eligible for listing on the State Register of Historic Places.
- The project site is located within an archaeologically sensitive area (i.e., potential to locate archaeological sites).
- No previously identified aboveground historic resources are located within the project site.
- Two consultation projects have been conducted within the project site and both are listed as open within CRIS.
    - One of the consultation projects is associated with DG New York and the other with City of Cortland Brownfield Opportunity Area
- The project site is within approximately 1 mile of 394 known building sites.
    - 42 resources are noted as eligible for the National Register of Historic Places (NRHP).
    - 233 resources are noted as not eligible for the NRHP.
    - 119 resources as noted as undetermined with regard to their NRHP status.
- The project site is within approximately 1 mile of four National Register districts.
    - 3 resources are noted as eligible for the NRHP.
    - 1 resource is noted as undetermined with regard to its NRHP status.
- The project site is within approximately 1 mile of 38 consultation projects. Thirty-six are noted as closed and two as open within CRIS.
- Eight archaeological surveys have been conducted within approximately 1 mile of the project site.
- One building survey has been conducted within approximately 1 mile of the project site.
- One cemetery is listed within approximately 1 mile of the project site.

DG New York is consulting with the SHPO to determine whether the SHPO has any recommendations for further cultural resource study of archaeological and/or architectural resources potentially affected by the proposed solar project. If no federal permits or approvals are required for the project, such coordination with the SHPO would be conducted in accordance with Section 14.09 of the New York State Historic Preservation Act of 1980. If federal permits or approvals are required for the project, such coordination with the SHPO would be conducted in accordance with Section 106 of the National Historic Preservation Act of 1966, as amended, and implementing regulations for Section 106 at 36 CFR Part 800.

DG New York CS, LLC

Attachment 6 - ALTA drawing

LEGAL DESCRIPTION

CHICAGO TITLE INSURANCE COMPANY
TITLE NO.:2017-1845NCS
EFFECTIVE DATE: APRIL 14, 2020
SCHEDULE A DESCRIPTION

ALL THAT TRACT OR PARCEL OF LAND, situate in the Town of Cortlandville, County of Cortland and State of New York, being in Military Lot 66 in said Town and being more particularly bounded and described as follows:

BEGINNING at a point on the centerline of Riley Road, said point being located 62 ± feet northeasterly from the intersection of the centerline of East River Road with the extended centerline of the south fork of the centerline of Riley Road (said point also being the intersection of the centerline of Riley Road with the centerline of an abandoned road formerly known as Salisbury Road); thence running on a curve to the right an arc distance of 138.5 feet to a point, said point also being located a chord bearing N 77° 00' 34" E a distance of 136.09 feet; thence running S 79° 49' 00" E along said centerline of Riley Road distance of 875.00 feet to a point; thence running S 12° 51' 04" W passing through a set rebar with survey cap at 26.55 feet, a total distance of 1,371.02 feet to a point marked by a set rebar with survey cap; thence running S 09° 52' 30" W along a hedgerow and wire fence a distance of 1,249.21 feet to a point marked by a set rebar with survey cap; thence running N 44° 33' 58" W a distance of 648.71 feet to an existing concrete highway monument; thence running N 28° 24' 03" W a distance of 539.55 feet to a point marked by an existing concrete highway monument; thence running N 15° 40' 16" W a distance of 189.93 feet to a point marked by an existing concrete highway monument; thence running N 01° 01' 32" E along a highway fence a distance of 934.27 feet to a point marked by an existing concrete highway monument; thence running N 12° 11' 49" W a distance of 40.26 feet to a point marked by a rebar with survey cap; thence running N 25° 06' 00" E along the centerline of an abandoned road (formerly known as Salisbury Road) and passing through a point marked by a set rebar with survey cap at 585.75 feet for a total distance of 660.75 feet to the point and place of beginning.

SURVEY DESCRIPTION

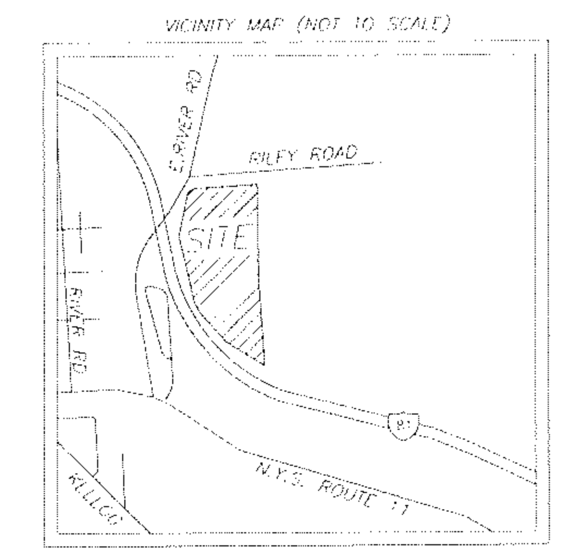
ALL THAT TRACT OR PARCEL OF LAND, situate in the Town of Cortlandville, County of Cortland and State of New York, being in Military Lot 66 in said Town and being more particularly bounded and described as follows:

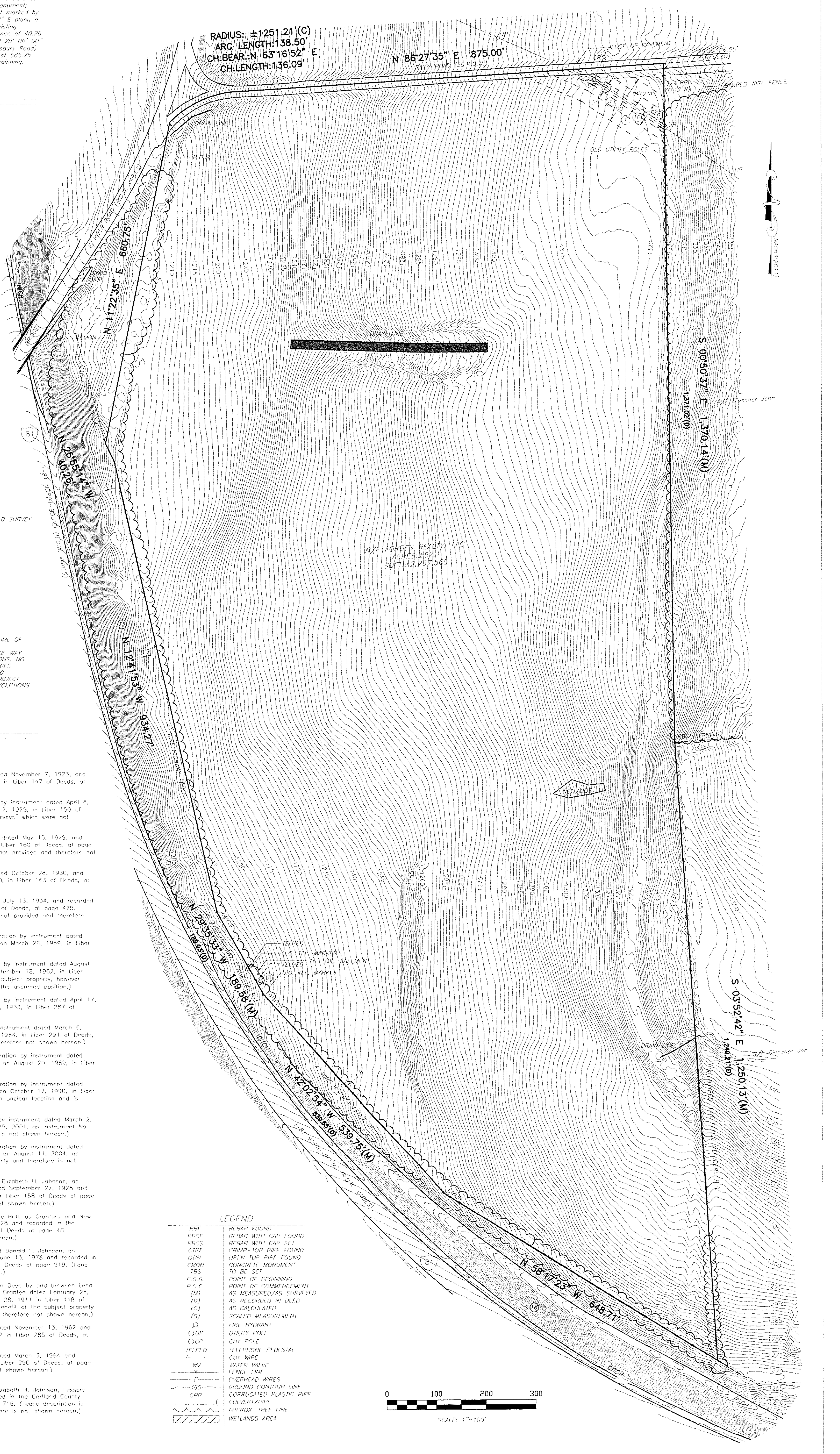
BEGINNING at a point on the centerline of Riley Road, said point being located 62 ± feet northeasterly from the intersection of the centerline of East River Road with the extended centerline of the south fork of the centerline of Riley Road (said point also being the intersection of the centerline of Riley Road with the centerline of an abandoned road formerly known as Salisbury Road); thence running

1. on a curve to the right having an arc distance of 138.5 feet to a point, said point also being located a chord bearing N 63°16'52" E a distance of 136.09 feet and a radius of ±1,251.21 feet; thence running
2. N 86°27'35" E along said centerline of Riley Road distance of 875.00 feet to a point; thence running
3. S 00°50'37" W passing through a set rebar with survey cap at 26.30 feet (26.55 feet per deed), a total distance of 1,370.14 feet (1,371.02 feet per deed) to a point marked by a rebar with survey cap; thence running
4. S 03°52'42" E along a hedgerow and wire fence a distance of 1,250.13 feet (1,249.21 feet per deed) to a point; thence running
5. N 58°17'23" W a distance of 648.71 feet to an existing concrete highway monument; thence running
6. N 42°02'54" W a distance of 539.75 feet (539.55 feet per deed) to a point marked by an existing concrete highway monument; thence running
7. N 29°35'33" W a distance of 189.58 feet (189.93 feet per deed) to a point marked by an existing concrete highway monument; thence running
8. N 12°41'53" W along a highway fence a distance of 934.27 feet to a point; thence running
9. N 25°55'14" W a distance of 40.26 feet to a point; thence running
10. N 11°22'35" E along the centerline of an abandoned road (formerly known as Salisbury Road) a distance of 660.75 feet to the point and TRUE PLACE OF BEGINNING.

GENERAL NOTES

1. HORIZONTAL DATUM USED: NAD83(2011) NY CENTRAL ZONE
2. VERTICAL DATUM USED: NAVD88, REFERENCED TO GEOID 18
3. EQUIPMENT USED FOR FIELD SURVEY: TRIMBLE R-8 MODEL 3
4. FIELD SURVEY PERFORMED ON JUNE 26, 2020
5. OFFSETS SHOWN HEREON ARE NOT TO BE USED FOR CONSTRUCTION PURPOSES.
6. THIS SURVEY IS CERTIFIED ONLY TO THE PARTIES SHOWN HEREON AND IS NOT TRANSFERABLE
7. IF THIS DOCUMENT DOES NOT CONTAIN THE SEAL OF THE PROFESSIONAL, IT IS NOT AN AUTHORIZED ORIGINAL DOCUMENT AND MAY HAVE BEEN ALTERED
8. RIGHTS, EASEMENTS AND INSTRUMENTS, IF ANY, FOR UTILITY POLES, WIRES, LINES, GUY WIRES, AND SIMILAR INSTALLATIONS, TOGETHER WITH SUCH RIGHTS MAY EXIST TO OPERATE, MAINTAIN AND REPAIR THE SAME.
9. TREE LINES SHOWN HEREON ARE APPROXIMATE. SOURCE: GOOGLE EARTH





NOTES FOR OPTIONAL TABLE A SPECIFICATIONS

1. MONUMENTS HAVE EITHER BEEN FOUND OR WILL BE SET AT ALL CORNERS OF THE PROPERTY
2. NO ADDRESS WAS OBSERVED ON THE PREMISES AT THE TIME OF FIELD SURVEY.
3. FLOOD ZONE DESIGNATION: X
   COMMUNITY: TOWN OF CORTLANDVILLE, 360179
   FIRM NUMBER: 36023C0232D
   EFFECTIVE DATE: 03/02/2010
4. AREA OF PREMISES: ±52.1 ACRES, OR ±2,267,565 Sq. Feet SQFT.
5. VERTICAL RELIEF SHOWN HEREON
8. SUBSTANTIAL FEATURES OBSERVED SHOWN HEREON
9. NO PARKING SPACES OBSERVED ON PREMISES
10. a. NO PARTY WALLS OBSERVED ON PREMISES
    OBSERVED UTILITIES SHOWN HEREON
11. NAMES OF ADJOINERS ACCORDING TO CURRENT TAX RECORDS SHOWN HEREON
13. DISTANCE TO NEAREST INTERSECTING STREET SHOWN HEREON
14. TOPOGRAPHIC AND PLANIMETRIC FEATURES HAVE BEEN PROVIDED BY THE CLIENT ON JULY 3, 2020. ACCURACY OF SUCH DATA NOT PROVIDED
15. NO EVIDENCE OF RECENT EARTH MOVING WORK (EXCLUDING FARMING), BUILDING CONSTRUCTION, OR BUILDING ADDITIONS OBSERVED AT THE TIME OF FIELD SURVEY
17. ANY INFORMATION PROVIDED CONCERNING CHANGES IN STREET RIGHT OF WAY LINES, OR CONSTRUCTION IS SHOWN IN THE SCHEDULE B-II EXCEPTIONS. NO OTHER INFORMATION WAS PROVIDED CONCERNING RIGHT OF WAY CHANGES
18. DELINEATION OF WETLANDS PROVIDED BY THE CLIENT ON JULY 3, 2020
19. OFFSITE EASEMENT TO ACCESS A SPRING OF WATER, BENEFITS THE SUBJECT PROPERTY AND IS REFERENCED AS NO. 17 IN THE SCHEDULE B-II EXCEPTIONS.

SCHEDULE B-II EXCEPTIONS

(1) Easement granted to New York Telephone Company by instrument dated November 7, 1923, and recorded in the Cortland County Clerk's Office on December 5, 1923, in Liber 147 of Deeds, at page 229. (48" easement on either side of lines, shown hereon).

(2) Easement and Right of Way granted to Cortland County Traction Co. by instrument dated April 8, 1924, and recorded in the Cortland County Clerk's Office on January 7, 1925, in Liber 150 of Deeds, at page 108. (Description of 40' easement refers to "final surveys" which were not provided and therefore not shown hereon.)

(3) Easement granted to The Cortland County Traction Co. by instrument dated May 15, 1929, and recorded in the Cortland County Clerk's Office on June 17, 1929, in Liber 160 of Deeds, at page 543. (Easement refers to an "annexed sheet" to show location, was not provided and therefore not shown hereon)

(4) Easement granted to New York Telephone Company by instrument dated October 28, 1930, and recorded in the Cortland County Clerk's Office on November 21, 1930, in Liber 163 of Deeds, at page 473. (100' easement on shown hereon.)

(5) Easement granted to Syracuse Lighting Company by instrument dated July 13, 1934, and recorded in the Cortland County Clerk's Office on June 5, 1935, in Liber 173 of Deeds, at page 475. (Document refers to an "annexed sheet" to show location which was not provided and therefore not shown hereon.)

(6) Right of Way and Easement granted to Niagara Mohawk Power Corporation by instrument dated March 18, 1959, and recorded in the Cortland County Clerk's Office on March 26, 1959, in Liber 262 of Deeds, at page 155. (50' easement shown hereon.)

(7) Right of Way and Easement granted to New York Telephone Company by instrument dated August 24, 1962, and recorded in the Cortland County Clerk's Office on September 18, 1962, in Liber 284 of Deeds, at page 508. (Described easement appears to be on subject property, however direction of said easement is unclear, shown hereon is a portion of the assumed position.)

(8) Right of Way and Easement granted to New York Telephone Company by instrument dated April 17, 1963, and recorded in the Cortland County Clerk's Office on April 29, 1963, in Liber 287 of Deeds, at page 22. (20' easement shown hereon)

(9) Easement granted to New York State Electric & Gas Corporation by instrument dated March 6, 1964, and recorded in the Cortland County Clerk's Office on May 4, 1964, in Liber 291 of Deeds, at page 290. (Described easement is not on subject property and therefore not shown hereon.)

(10) Right of Way and Easement granted to Niagara Mohawk Power Corporation by instrument dated August 18, 1969, and recorded in the Cortland County Clerk's Office on August 20, 1969, in Liber 317 of Deeds, at page 74. (50' easement shown hereon)

(11) Right of Way and Easement granted to Niagara Mohawk Power Corporation by instrument dated August 9, 1990, and recorded in the Cortland County Clerk's Office on October 17, 1990, in Liber 511 of Deeds, at page 174. (Description refers to ETL Tap #2, in an unclear location and is therefore not shown hereon.)

(12) Permanent Easement for Roadway granted to Suit-Kote Corporation by instrument dated March 2, 2001, and recorded in the Cortland County Clerk's Office on March 15, 2001, as Instrument No. 2001 1154. (Appears to be south of subject property and therefore is not shown hereon.)

(13) Easement and Right of Way granted to Niagara Mohawk Power Corporation by instrument dated August 11, 2004, and recorded in the Cortland County Clerk's Office on August 11, 2004, as instrument No. 1027329-003. (appears to be south of subject property and therefore is not shown hereon.)

(14) Easements contained in Deed by and between Henry T. Johnson and Elizabeth H. Johnson, as Grantors and New York Power and Light Corporation, as Grantee dated September 27, 1928 and recorded in the Cortland County Clerk's Office on October 3, 1928 in Liber 158 of Deeds at page 298. (Does not appear to be on subject property and therefore is not shown hereon.)

(15) Easements contained in Deed by and between Thomas Brill and Jennie Brill, as Grantors and New York Power and Light Corporation, as Grantee dated December 5, 1928 and recorded in the Cortland County Clerk's Office on December 22, 1928 in Liber 160 of Deeds at page 48. (Easement is not on subject property and therefore is not shown hereon.)

(16) Easements contained in Deed by and between Robert H. Johnson and Donald I. Johnson, as Grantors and Niagara Mohawk Power Corporation, as Grantee dated June 13, 1978 and recorded in the Cortland County Clerk's Office on June 13, 1978 in Liber 356 of Deeds at page 919. (Land described is not on subject property and therefore not shown hereon.)

(17) Terms, Conditions, Restrictions, Covenants and Easements contained in Deed by and between Lena R. Conable and Nellie I. Conable, as Grantors and Ellen Johnson, as Grantee dated February 28, 1911 and recorded in the Cortland County Clerk's Office on February 28, 1911 in Liber 118 of Deeds, at page 513. (Rights to a spring of water which is for the benefit of the subject property owner. Other restrictions, covenants are not on subject property and therefore not shown hereon.)

(18) Appropriation of Property by the People of the State of New York dated November 13, 1962 and recorded in the Cortland County Clerk's Office on November 13, 1962 in Liber 285 of Deeds, at page 417. (Appropriation for Interstate-81, shown hereon.)

(19) Appropriation of Property by the People of the State of New York dated March 3, 1964 and recorded in the Cortland County Clerk's Office on March 3, 1964 in Liber 290 of Deeds, at page 535. (Map of appropriation provided is indiscernable and therefore not shown hereon.)

(20) Oil, Gas and Mineral Lease by and between Harry T. Johnson and Elizabeth H. Johnson, Lessors and Gulf Oil Corporation, Lesee dated November 3, 1964 and recorded in the Cortland County Clerk's Office on December 7, 1964 in Liber 295 of Deeds, at page 716. (Lease description is inconclusive, lease is not plottable, and the term has expired, therefore is not shown hereon.)

LEGEND

RBF	REBAR FOUND
RBCF	REBAR WITH CAP FOUND
RBCS	REBAR WITH CAP SET
CTPF	CRIMP-TOP PIPE FOUND
OTPF	OPEN TOP PIPE FOUND
CMON	CONCRETE MONUMENT
TBS	TO BE SET
P.O.B.	POINT OF BEGINNING
P.O.C.	POINT OF COMMENCEMENT
(M)	AS MEASURED/AS SURVEYED
(D)	AS RECORDED IN DEED
(C)	AS CALCULATED
(S)	SCALED MEASUREMENT
	FIRE HYDRANT
UP	UTILITY POLE
GP	GUY POLE
TELPED	TELEPHONE PEDESTAL
	GUY WIRE
WV	WATER VALVE
—x—	FENCE LINE
—E—	OVERHEAD WIRES
—385—	GROUND CONTOUR LINE
CPP	CORRUGATED PLASTIC PIPE
	CULVERT/PIPE
	APPROX TREE LINE
	WETLANDS AREA

0 100 200 300
SCALE: 1"=100'

REVISIONS: DATE:

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2016 MINIMUM STANDARDS DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 1, 2, 3, 4, 5, 8, 9, 10A, 11, 13, 14, 15, 17, 18, AND 19 OF TABLE A THEREOF. THE FIELDWORK WAS COMPLETED ON JUNE 18, 2020.

THIS SURVEY IS CERTIFIED TO THE FOLLOWING PARTIES:

- DUDEK & ASSOCIATES, INC.
- DG NEW YORK, CS LLC

STATE OF NEW YORK · THOMAS D. STRONG · 050410 · LICENSED LAND SURVEYOR

7/06/2020
THOMAS D. STRONG N.Y.L.S. LICENSE No. 050410 DATE

SCHWERZLER LAND SURVEYING, LLC
305 FOREST AVENUE
PARAMUS, NJ 07652
201.660.8375
gregoryschwerzler@yahoo.com
www.SchwerzlerLand.com

FILE: 20200529-6 | FIELD BY: GWS | DWN BY: GWS | CHK BY: TDS

ALTA/NSPS LAND TITLE SURVEY

TAX ID: 87.00-03-08.112
SITUATED IN THE
TOWN OF CORTLANDVILLE, CORTLAND COUNTY, NEW YORK
JULY 6, 2020

DG New York CS, LLC

Attachment 7 – Preliminary Site Plans

2020 NY GREENFIELD PV DESIGN - RILEY ROAD

1902 RILEY RD,
CORTLAND, NY 13045

PROJECT DATA

PARCEL INFORMATION

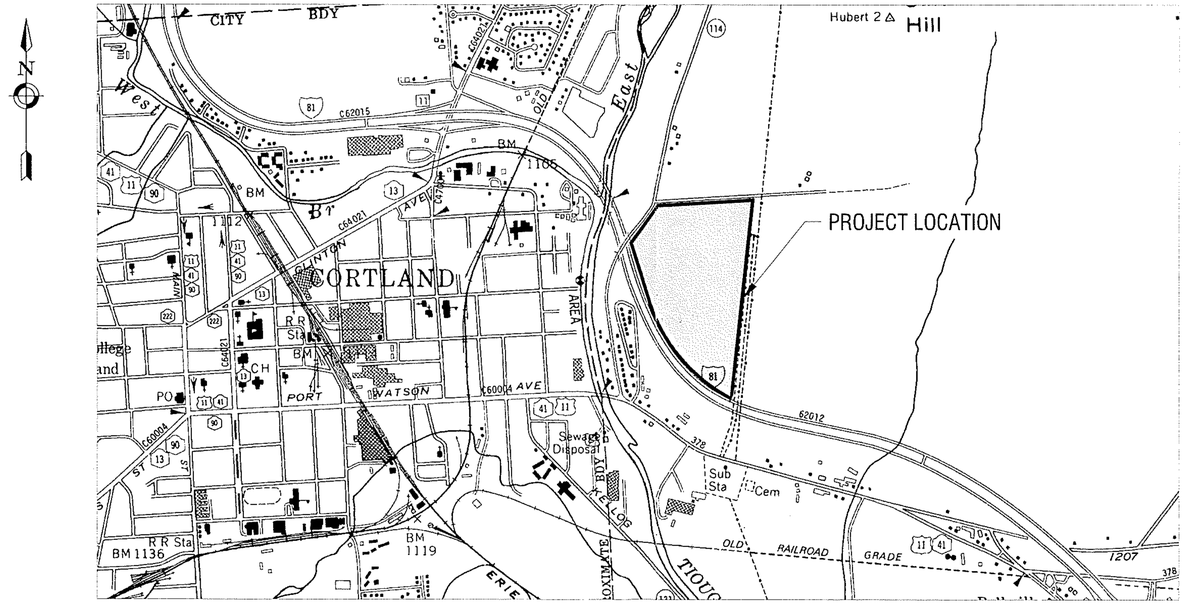
APPLICANT	NEXT ERA ENERGY
PARCEL ADDRESS	1902 RILEY RD, CORTLANDVILLE, NY 13045
TAX NUMBER	87.00-03-08.112
GPS COORDINATES	N: 42.604164° W: -76.153672°
AVERAGE SITE ELEVATION	1275.00'
PARCEL AREA	52.05 ACRES
DISTURBANCE AREA	35.8 ACRES
EQUIPMENT PAD AREA	±11,400 SF
STAGING AREA	0.63 ACRES
FENCED AREA	34.24 ACRES
DRIVEN POST CROSS SECTIONAL AREA	±2 SF
DRIVEN POST QUANTITY	4,035
DRIVEN POST CROSS SECTIONAL AREA (TOTAL)	12,676.3 SF
ROAD LENGTH	±1,675 FT
SILT FENCE	±2,090 FT
CHAIN LINK FENCE	± 5,190 FT
GATE COUNT	2

SYSTEM SUMMARY (TOTAL)

SYSTEM AC SIZE (MW)	5.0
SYSTEM DC SIZE (MW)	7.5
MODULE COUNT	20,982
INVERTER COUNT	X
SWITCH GEAR COUNT	X
TRANSFORMER COUNT	X
EQUIPMENT PAD COUNT	2
UTILITY POLE COUNT	6

ZONING INFORMATION

	REQUIRED	PROPOSED
CODE APPLIED	TOWN OF CORTLAND	
WEBSITE	HTTPS://WWW.CORTLANDVILLE.ORG/PLANNING-ZONING/PAGES/ZONING-LAWS	
CLASSIFICATION	AGRICULTURAL DISTRICT	
FRONT SETBACK	75 FT	75 FT
SIDE SETBACK	100 FT	75 FT
REAR SETBACK	75 FT	100 FT
ENTRANCE WIDTH	-	20 FT
MAX FENCE HEIGHT	-	7 FT
STRUCTURE COVERAGE	20%	±19%
MIN LOT SIZE	2 AC	52.05 AC



LOCATION MAP
SCALE: N.T.S.

CIVIL DRAWING INDEX

C000	COVER SHEET	REV 0-0
C001	CONSTRUCTION NOTES	REV 0-0
C101	EXISTING CONDITIONS AND REMOVALS PLAN	REV 0-0
C102	EXISTING CONDITIONS AND REMOVALS PLAN	REV 0-0
C200	OVERALL SITE PLAN	REV 0-0
C201	SITE PLAN	REV 0-0
C202	SITE PLAN	REV 0-0
C501	EROSION & SEDIMENT CONTROL PLAN	REV 0-0
C502	EROSION & SEDIMENT CONTROL PLAN	REV 0-0
C601	LANDSCAPING PLAN	REV 0-0
C602	LANDSCAPING PLAN	REV 0-0
C701	CONSTRUCTION DETAILS	REV 0-0
C702	CONSTRUCTION DETAILS	REV 0-0
C703	CONSTRUCTION DETAILS	REV 0-0
C704	CONSTRUCTION DETAILS	REV 0-0

ISSUED FOR REVIEW
NOVEMBER 2020

NEXTERA ENERGY RESOURCES
PROJECT NO: 2201200.08

2020 NY GREENFIELD PV DESIGN - RILEY ROAD
1902 RILEY RD, CORTLANDVILLE, NY 13045

NEXTERA ENERGY RESOURCES
700 UNIVERSE BLVD.
JUNO BEACH, FL 33408

PROJECT NO: 2201200.08
NOVEMBER 2020

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300 State Street, Suite 201
Rochester, NY 14614
585-454-6110
labellapc.com

GENERAL GRADING NOTES

1. THE CONTRACTOR SHALL CONFORM TO THE REQUIREMENTS OF OSHA, AND ANY OTHER AGENCY HAVING JURISDICTION WITH REGARD TO SAFETY PRECAUTIONS WITH TRENCHING OPERATIONS. THE REQUIREMENTS SET FORTH HEREIN ARE INTENDED TO SUPPLEMENT REQUIREMENTS ESTABLISHED BY THESE AGENCIES. IN THE CASE OF A CONFLICT BETWEEN REQUIREMENTS OF OTHER JURISDICTIONAL AGENCIES AND THESE DOCUMENTS, THE MORE STRINGENT REQUIREMENT ON THE CONTRACTOR SHALL APPLY.
2. SHEETING, IF REQUIRED DURING CONSTRUCTION, IS CONSIDERED TO BE PART OF THIS CONTRACT AND SHALL BE PROVIDED AT NO ADDITIONAL COST TO THE OWNER.
3. ALL TRENCHES THROUGH PAVEMENT SHALL BE SAW CUT PRIOR TO EXCAVATION AND AGAIN PRIOR TO PAVEMENT RESTORATION.
4. CONTRACTOR SHALL ADJUST THE RIMS OF ALL MANHOLES, CATCH BASINS, VALVE BOXES AND OTHER UTILITY SITE STRUCTURES TO MEET FINISHED GRADE IN AREAS REQUIRING REPAVING OR REGRADING AS PART OF THE WORK, INCLUDING THOSE THAT MAY NOT BE SHOWN ON THE PLANS.
5. VOIDS LEFT BY UTILITY OR STRUCTURE REMOVAL OR GRUBBING OPERATIONS SHALL BE BACKFILLED AND PROPERLY COMPACTED WITH STRUCTURAL FILL (NYSDOT ITEM 304.12) IN AREAS UNDER AND WITHIN 5 FEET HORIZONTALLY OF ALL STRUCTURES, BUILDINGS AND PAVEMENTS. IN GRASSED AREAS, VOIDS LEFT SHALL BE FILLED AND PROPERLY COMPACTED WITH SUITABLE ON-SITE OR IMPORTED EARTHEN BACKFILL. ALL DISTURBED AREAS SHALL BE RESTORED.
6. THE CONTRACTOR SHALL DEWATER ALL EXCAVATIONS TO PREVENT THE INTRODUCTION OF GROUNDWATER INTO THE TRENCHES/EXCAVATIONS. PROVIDE ALL EQUIPMENT NECESSARY TO MAINTAIN THE GROUNDWATER LEVEL AS NECESSARY
7. THE CONTRACTOR SHALL PLACE AT A MINIMUM 6 INCHES OF MECHANICALLY CLEANED SCREENED TOPSOIL, FREE OF ANY ROOTS, CLAY CLUMPS, ROCKS LARGER THAN 1", AND OTHER FOREIGN MATTER IN ALL DISTURBED AREAS PRIOR TO SEEDING.
8. ANY DISCREPANCIES BETWEEN THE CONTRACTORS SURVEY STAKEOUT AND THE ENGINEER'S DESIGN INTENT OR DETAILS SHALL BE BROUGHT TO THE ENGINEERS ATTENTION PRIOR TO INSTALLATION. FAILURE TO DO SO WILL NOT RESULT IN ADDITIONAL COSTS TO THE OWNER.

TEMPORARY SEEDING NOTES

1. IF SPRING OR SUMMER OR EARLY FALL, THEN SEED THE AREA WITH RYEGRASS (ANNUAL OR PERENNIAL) AT 30 LBS. PER ACRE
2. IF LATE FALL OR EARLY WINTER, THEN SEED DERTIFIED 'AROOSTOOK' WINTER RYE (CERAL RYE) AT 100 LBS PER ACRE.
3. FERTILIZER OR LIME ARE NOT TYPICALLY USED FOR TEMPORARY SEEDING, BUT IF USED SHOULD BE IN ACCORDANCE WITH THE PERMANENT SEEDING NOTES ON THE LANDSCAPE PLAN.
4. ANY SEEDING METHOD MAY BE USED THAT WILL PROVIDE UNIFORM APPLICATION OF SEED TO THE AREA AND RESULT IN RELATIVELY GOOD SOIL TO SEED CONTACT.
5. MULCH THE AREA WITH HAY OR STRAW AT 2 TONS PER ACRE (4 TONS PER ACRE IN WINTER). QUALIFY OF HAY OR STRAW MULCH ALLOWABLE WILL BE DETERMINED BASED ON LONG TERM USE AND VISUAL CONCERNS. MULCH ANCHORING WILL BE REQUIRED WHERE WIND OR AREAS OF CONCENTRATED WATER ARE OF CONCERN.

BASEMAP INFORMATION

PART OF BASEMAP	RECIEVED FROM	DATE
WETLAND DELINEATION	NEXT ERA ENERGY SOURCES	JULY 3, 2020
LEGAL DESCRIPTION	CHICAGO TITLE INSURANCE COMPANY	APRIL 14, 2020
TOPOGRAPHIC SURVEY	NEXT ERA ENERGY RESOURCES	JULY 3, 2020
BOUNDARY SURVEY	SCHWERZLER LAND SURVEYING, LLC	JULY 6, 2020
TREE LINES	TRACED FROM AERIAL IMAGGERY	JULY 6, 2020

GENERAL NOTES

1. THE CONTRACTOR ALONE SHALL BE RESPONSIBLE TO LOCATE UTILITIES OUTSIDE THE RIGHT-OF-WAY INCLUDING PRIVATE ROADS
2. SITE DRAINAGE, INCLUDING THE PROJECT SITE AND ADJACENT PRIVATE AND PUBLIC ROADWAYS, DRIVES, PARKING AREAS OR PROPERTIES SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SUPPLYING ALL MATERIALS, TOOLS AND EQUIPMENT, INCLUDING SPECIAL CUTTING DEVICES, NECESSARY TO PERFORM THE WORK CONTAINED IN THIS CONTRACT.
4. THE SIZES AND MATERIAL OF CONSTRUCTION OF WATER MAINS, SANITARY SEWERS AND STORM SEWERS TO REMAIN ARE REPUTED. THE CONTRACTOR SHALL VERIFY SIZES OF ALL UTILITIES WHERE CONNECTIONS TO SAID EXISTING UTILITIES ARE REQUIRED. EXCAVATION TO VERIFY THESE UTILITIES SHALL BE MADE AT NO ADDITIONAL COST TO THE OWNER.
5. THE CONTRACTOR SHALL PROTECT ALL EXISTING SITE AMENITIES NOT DESIGNATED FOR REMOVAL.
6. UNLESS OTHERWISE INDICATED ON THE PLANS OR DIRECTED BY THE ARCHITECT/ENGINEER, THE CONTRACTOR IS RESPONSIBLE FOR PRESERVING AND PROTECTING FROM DAMAGE ALL TREES, SHRUBS AND PLANTS IN THE VICINITY OF THE PROPOSED WORK.
7. THE CONTRACTOR SHALL PROTECT AND SUPPORT ALL EXISTING UTILITIES DESIGNATED TO REMAIN FOR THE DURATION OF THE CONTRACT.
8. ANY SITE AMENITY, UTILITY, STREET APPURTENANCE, OR OTHER ITEM WHICH BECOMES DAMAGED AS A RESULT OF THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED OR REPLACED IN-KIND BY THE CONTRACTOR AS DETERMINED BY THE PROJECT MANAGER OR ARCHITECT/ENGINEER AND AT NO ADDITIONAL COST TO THE OWNER.

SURVEY NOTES

1. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO BID. NO ALLOWANCE WILL BE MADE FOR ADDITIONAL COSTS DUE TO CONTRACTOR'S FAILURE TO VERIFY EXISTING CONDITIONS.
2. THE CONTRACTOR SHALL LOCATE, MARK, SAFEGUARD AND PRESERVE ALL SURVEY MARKERS AND RIGHT-OF-WAY MARKERS IN THE AREA OF CONSTRUCTION.
3. ANY IRON PINS, MONUMENTS OR OTHER ITEMS DEFINING PROPERTY LINES WHICH ARE DISTURBED BY CONSTRUCTION OPERATIONS SHALL BE PROPERLY TIED AND ACCURATELY RESET BY A NYS LICENSED SURVEYOR UPON COMPLETION OF THE WORK.
4. THE VERTICAL DATUM IS REFERENCED TO NORTH AMERICAN VERTICAL DATUM 88 (NAVD 88).
5. THE HORIZONTAL DATUM IS REFERENCED TO NORTH AMERICAN DATUM 83 (NAVD 83) - STATE PLANE NEW YORK CENTRAL.

RESTORATION NOTES

1. A SOILS ANALYSIS SHALL BE COMPLETED PRIOR TO APPLYING ANY FERTILIZER OR SOIL AMENDMENT TO ENSURE THE PROPER MIX IS USED.
2. SLOW-RELEASE FERTILIZER: GRANULAR OR PELLETED FERTILIZER CONSISTING OF 50 PERCENT WATER- INSOLUBLE NITROGEN, PHOSPORUS, AND POTASSIUM IN THE FOLLOWING COMPOSITION.
   COMPOSITION: 10 PERCENT NITROGEN, 6 PERCENT PHOSPHOROUS, 4 PERCENT POTASSIUM, BY WEIGHT.
3. CYANAMID COMPOUNDS AND HYDRATED LIME ARE NOT PERMITTED IN FERTILIZER MIXTURES.
4. FERTILIZER IS NOT REQUIRED FOR TEMPORARY SEED.
5. STRAW MULCH. CLEAN, MILDEW- AND SEED FREE OAT OR WHEAT STRAW WELL SEASONED BEFORE BALING, FREE FROM MATURE SEED BEARING STALKS OR ROOTS OF PROHIBITED OR NOXIOUS WEEDS.
6. HYDRO FIBER MULCH: SHALL BE A WOOD FIBER OR WOOD FIBER AND CELLULOSE MIXTURE, PROVIDING THE CELLULOSE CONTENT DOES NOT EXCEED 20% BY VOLUME AND IS THOROUGHLY MIXED WITH WOOD FIBER MULCH. APPLY LIQUID TACKIFIER UNIFORMLY AT THE RATE OF 60 GALLONS PER ACRE, TO KEEP STRAW MULCH IN PLACE.
7. PERMANENT SEED SPECIES: REFER TO SPECIFICATIONS, PROVIDE STATE-CERTIFIED (BLUE TAG) SEED OF GRASS SPECIES AND PERCENTAGES
8. SLOPE STABILIZATION MESH STABILIZATION FABRIC SHALL BE ADDED ON ALL SLOPES EXCEEDING ONE FOOT VERTICAL TO THREE FEET HORIZONTAL (1 ON 3).
9. ALL DISTURBED SOILS LOCATED IN LAWN AREAS ARE TO BE TILLED A MINIMUM OF 12" IN ORDER TO RESTORE THE ORIGINAL PROPERTIES OF THE SOIL.

SCHEDULE OF CONSTRUCTION ACTIVITIES

1. SCHEDULE A PRE-CONSTRUCTION MEETING WITH TOWN OFFICIALS, OWNER, EMERGENCY SERVICES, UTILITY & OTHER AGENCIES IN ATTENDANCE
2. SUBMIT EROSION CONTROL MEASURES AND SEQUENCING FOR REVIEW AND APPROVAL BY THE QUALIFIED INSPECTOR.
3. INSTALL STABILIZED CONSTRUCTION ENTRANCE
4. INSTALL CONSTRUCTION AREA, DESIGNATED TOPSOIL STOCKPILE AREA, AND STAGING AREA FENCING.
5. INSTALL PERIMETER SEDIMENT CONTROLS, SUCH AS SILT FENCE / SEDIMENT SOCK.
6. PROTECT EXISTING VEGETATION AND OTHER ENVIRONMENTAL FEATURES TO BE PRESERVED WITH ORANGE CONSTRUCTION FENCE OR TREE PROTECTION.
7. CLEAR AND GRUB BRUSH, SHRUBS, AND OTHER DEBRIS WITHIN DESIGNATED AREAS.
8. INSPECT, CLEAN, AND MAINTAIN EROSION CONTROL MEASURES AS NECESSARY AND AS ORDERED BY THE QUALIFIED INSPECTOR. SWEEP PUBLIC OR PRIVATE ROADWAYS, DRIVES AND PARKING AREAS AS NECESSARY TO MAINTAIN CLEAN FROM DEBRIS. RELOCATED AND RESET EROSION CONTROL MEASURES AND CONSTRUCTION FENCING AS REQUIRED TO COMPLETE WORK. ALL APPROPRIATE EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IN PLACE AND FUNCTIONAL BEFORE COMMENCEMENT OF CONSTRUCTION OF ANY SEGMENT OF THE PROJECT THAT REQUIRES SUCH MEASURES.
9. STABILIZE DISTURBED AREAS AND STOCKPILES WITHIN 14 DAYS OF LAST CONSTRUCTION ACTIVITY IN EACH AREA. (7 DATS IF GREATER THAN 5 ACRES DISTURBED)
10. INSTALL UTILITIES. EXCESS MATERIALS NOT BACKFILLED IN UTILITY TRENCHES SHALL BE REMOVED FROM THE SITE OR SPOILED IN AREAS APPROVED BY THE OWNER. EROSION CONTROL MEASURES ARE NOT REQUIRED AROUND SOILS (EARTHEN MATERIALS) EXCAVATED, SIDE CAST AND BACKFILLED INTO THE TRENCH WITHIN THE SAME DAY.
11. DEWATER EXCAVATIONS AS NECESSARY. PUMPED WATER SHALL BE TREATED TO REMOVE SEDIMENT PRIOR TO DISCHARGE.
12. RESTORE TO EXISTING GRADE AS TRENCH BACKFILLING PROGRESSING. MAINTAIN PROPER SITE DRAINAGE TO PROTECT WORK AREA, ADJACENT PROPERTIES, SWALES, AND OTHER WATERCOURSES.
13. BOX OUT AREAS FOR PERVIOUS ACCESS ROADS AND EQUIPMENT PADS. AS UTILITY REPLACEMENTS ARE COMPLETE, PREPARE THE ROADWAY SUBGRADE AS REQUIRED.
14. INSTALL CONCRETE WASHOUT AREA. NO WET OR FRESH CONCRETE, WASHINGS FROM CONCRETE TRUCKS, MIXERS, OR OTHER DEVICES, OR CONCRETE LEACHATE SHALL BE ALLOWED TO ESCAPE INTO ANY WETLANDS OR WATERS.
15. INSTALL PERMANENT SEEDING, FERTILIZER, AND MULCH.
16. COMPLETE GRADING IF REQUIRED, REAPPLY TOPSOIL, INSTALL PERMANENT SEEDING, FERTILIZER, AND MULCH.
17. COMPLETE PERVIOUS ACCESS ROAD INSTALLATION ONCE ALL AREAS SUBJECT TO RUNOFF ONTO THE PERVIOUS ACCESS ROAD HAVE ACHIEVED FINAL STABILIZATION.
18. CAPTURE, REMOVE, AND DISPOSE OF ACCUMULATED SILT OR SEDIMENT FROM SILT FENCE, CHECK DAMS, INLET PROTECTION, AND SEDIMENT BASINS.
19. CLEAN THE SITE OF ALL INCIDENTAL CONSTRUCTION MATERIALS THAT ARE NOT INCORPORATED INTO THE WORK, AND PROPERLY DISPOSE OFFSITE.
20. SEED, MULCH, AND FERTILIZE TO ESTABLISH VEGETATION AT DISTURBED AREAS NOT DESIGNATED FOR PAVEMENT OR OTHER SURFACES. WHERE SEED DOES NOT GERMINATE OR WHERE WASHOUT, EROSION, RUTTING, OR OTHER DAMAGE OCCURS, REPAIR DAMAGE, RE-SEED AND RE-FERTILIZE AS NECESSARY TO ACHIEVE 80% GERMINATION OVER 100% OF THE SITE.
21. REMOVE ALL TEMPORARY EROSION CONTROL PRACTICES UPON APPROVAL OF FINAL STABILIZATION BY THE QUALIFIED INSPECTOR.

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It is a violation of New York Education Law Article 145 Sec.7209, for any person, unless acting under the direction of a licensed architect, professional engineer, or land surveyor, to alter an item in any way. If an item bearing the seal of an architect, engineer, or land surveyor is altered; the altering architect, engineer, or land surveyor shall affix to the item their seal and notation "altered by" followed by their signature and date of such alteration, and a specific description of the alteration.

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NEXT ERA ENERGY
700 UNIVERSE BLVD.
JUNO BEACH, FL 33408

NEXTera ENERGY

2020 NY GREENFIELD PV DESIGN - RILEY ROAD 1
1902 RILEY RD.
CORTLANDVILLE, NY 13045

NO:	DATE:	DESCRIPTION:
Revisions		

PROJECT NUMBER: 2201200.08
DRAWN BY: BER
REVIEWED BY: DG
ISSUED FOR: REVIEW
DATE: NOVEMBER 2020
DRAWING NAME:

CONSTRUCTION NOTES

DRAWING NUMBER:

C001

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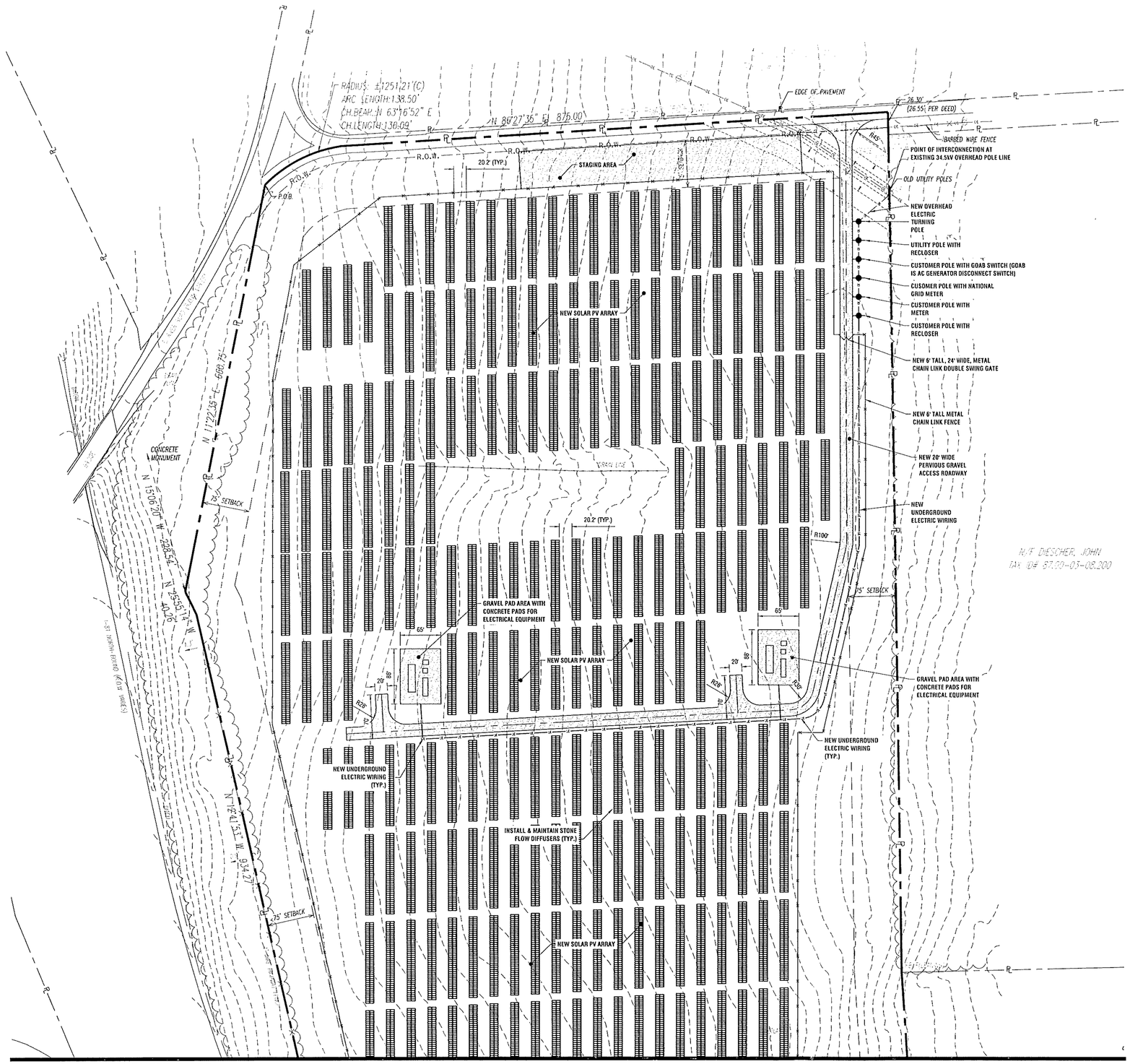


MATCH TO SHEET C-202

2 / C201 SITE PLAN
SCALE: 1" = 80'

SITE NOTES

1. WELL COMPACTED SUBGRADE SHALL BE UTILIZED UNDERNEATH CONSTRUCTION OF PAVEMENT AND CONCRETE BASES.
2. ALL STAKEOUT FOR THE PROPOSED SITE IMPROVEMENTS SHALL BE COMPLETED BY A NEW YORK STATE LICENSED LAND SURVEYOR.
3. IF ANY DISCREPANCIES ARE NOTED BETWEEN THESE CONSTRUCTION DOCUMENTS AND INFORMATION PROVIDED OR AN ERROR IS SUSPECT, IT SHALL BE IMMEDIATELY REPORTED TO THE CONSTRUCTION MANAGER AND LABELLA ASSOCIATES PROJECT MANAGER IN WRITING.
4. ANY PROOF-ROOLING OF EXPOSED SUBBASE BY A MINIMUM 10 TON SMOOTH DRUM ROLLER SHALL BE DONE UNDER THE GUIDANCE OF, AND OBSERVED BY, QUALIFIED ENGINEERING PERSONNEL PRIOR TO PLACEMENT OF SUBBASE MATERIAL. THE ROLLER SHOULD BE OPERATED IN THE STATIC MODE AND COMPLETE AT LEAST TWO (2) PASSES OVER THE EXPOSED SUBGRADES.

GENERAL UTILITY NOTES:

1. THE CONTRACTOR SHALL CONTACT DIG SAFE TO REQUEST A STAKEOUT PRIOR TO SOIL DISTURBANCE TO IDENTIFY LOCATION OF ALL EXISTING UTILITIES.
2. THE CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES UNLESS OTHERWISE NOTED ON THE DRAWINGS.

LEGEND

EXISTING	PROPOSED	DESCRIPTION
		WETLAND
		ROADWAY CENTERLINES
		PERVIOUS GRAVEL PAVEMENT
		CHAIN LINK FENCE
		TREELINE
		PROPERTY LINE
		SETBACK LINE
		EASEMENT LINE
		OVERHEAD ELECTRIC LINE
		UNDERGROUND ELECTRIC LINE
		UTILITY POLE W/O LIGHT

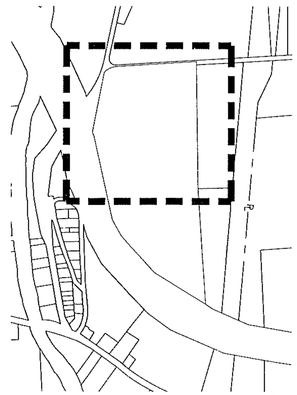
QUANTITIES TABLE

SITE AND UTILITY QUANTITIES

GRAVEL DRIVE	±37,085 SF
GRAVEL PAD	±9,700 SF
CONCRETE	±1,730 SF
6' TALL CHAIN LINK FENCING	±5,135 LF
12' CHAIN LINK DOUBLE SWING GATE	1
24' CHAIN LINK DOUBLE SWING GATE	1
UNDERGROUND ELECTRICAL WIRING	±1,390 LF
OVERHEAD ELECTRICAL WIRING	±215 LF
UTILITY POLES	6

NOTE:

QUANTITIES ARE PROVIDED FOR REFERENCE ONLY. CONTRACTOR TO VERIFY PROPOSED QUANTITIES BASED ON DESIGN PRIOR TO BID.



1 / C201 KEY PLAN
SCALE: 1" = 750'

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JUNO BEACH, FL 33408

NEXTera ENERGY

2020 NY GREENFIELD PV DESIGN - RILEY ROAD 1
1902 RILEY RD.
CORTLANDVILLE, NY 13045

NO.	DATE:	DESCRIPTION:
Revisions		

PROJECT NUMBER: 2201200.08
DRAWN BY: JMA
REVIEWED BY: DG
ISSUED FOR: REVIEW
DATE: NOVEMBER 2020
DRAWING NAME:

SITE PLAN (SHEET 1 OF 2)

DRAWING NUMBER:

C201

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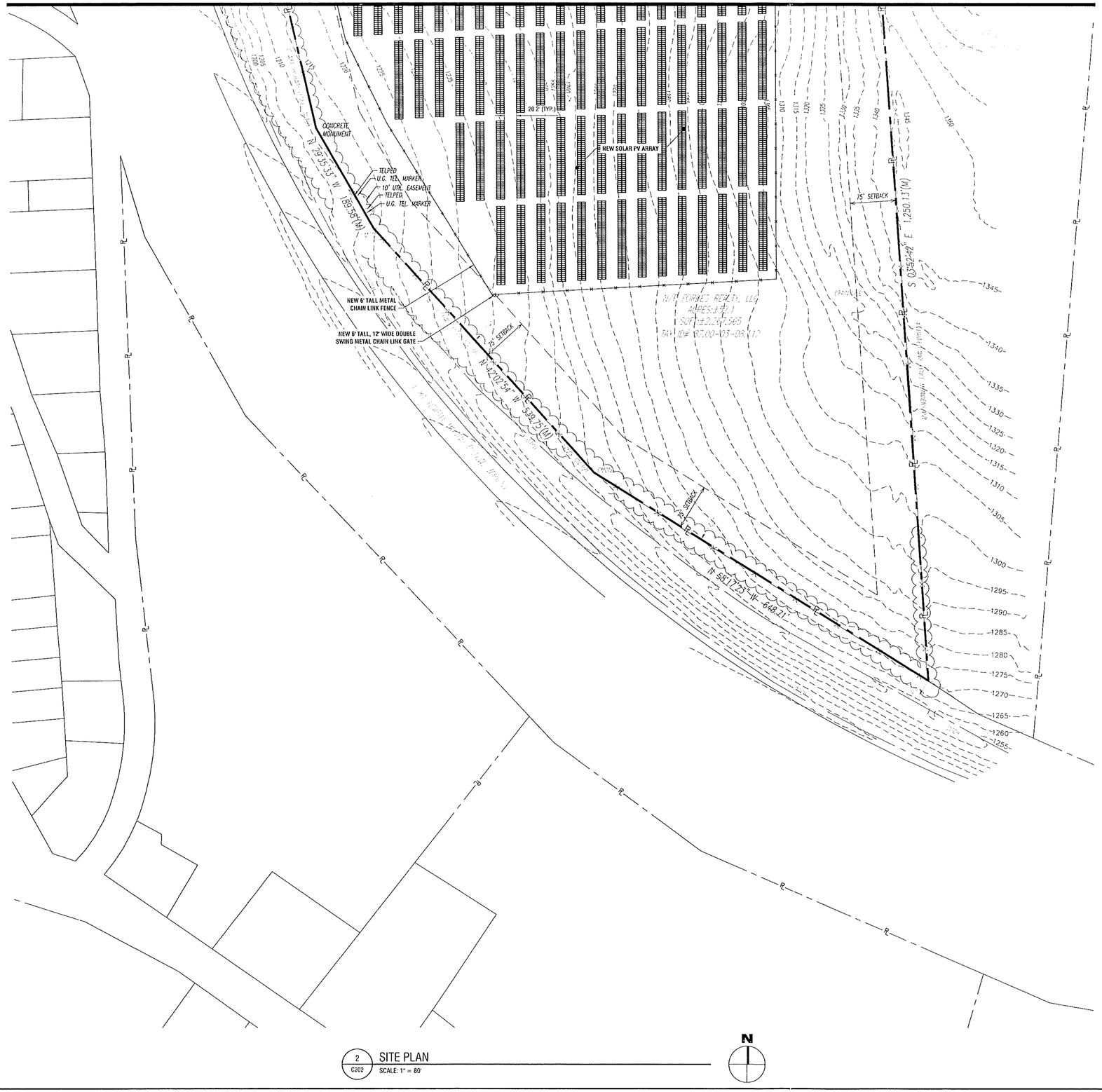
MATCH TO SHEET C-201



2 C202 SITE PLAN
SCALE: 1" = 80'

N

SITE NOTES

1. WELL COMPACTED SUBGRADE SHALL BE UTILIZED UNDERNEATH CONSTRUCTION OF PAVEMENT AND CONCRETE BASES.
2. ALL STAKEOUT FOR THE PROPOSED SITE IMPROVEMENTS SHALL BE COMPLETED BY A NEW YORK STATE LICENSED LAND SURVEYOR.
3. IF ANY DISCREPANCIES ARE NOTED BETWEEN THESE CONSTRUCTION DOCUMENTS AND INFORMATION PROVIDED OR AN ERROR IS SUSPECT, IT SHALL BE IMMEDIATELY REPORTED TO THE CONSTRUCTION MANAGER AND LABELLA ASSOCIATES PROJECT MANAGER IN WRITING.
4. ANY PROOF-ROOLING OF EXPOSED SUBBASE BY A MINIMUM 10 TON SMOOTH DRUM ROLLER SHALL BE DONE UNDER THE GUIDANCE OF, AND OBSERVED BY, QUALIFIED ENGINEERING PERSONNEL PRIOR TO PLACEMENT OF SUBBASE MATERIAL. THE ROLLER SHOULD BE OPERATED IN THE STATIC MODE AND COMPLETE AT LEAST TWO (2) PASSES OVER THE EXPOSED SUBGRADES.

GENERAL UTILITY NOTES:

1. THE CONTRACTOR SHALL CONTACT DIG SAFE TO REQUEST A STAKEOUT PRIOR TO SOIL DISTURBANCE TO IDENTIFY LOCATION OF ALL EXISTING UTILITIES.
2. THE CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES UNLESS OTHERWISE NOTED ON THE DRAWINGS.

LEGEND

EXISTING	PROPOSED	DESCRIPTION
		WETLAND
		ROADWAY CENTERLINES
		PERVIOUS GRAVEL PAVEMENT
		CHAIN LINK FENCE
		TREELINE
		PROPERTY LINE
		SETBACK LINE
		EASEMENT LINE
		OVERHEAD ELECTRIC LINE
		UNDERGROUND ELECTRIC LINE
		UTILITY POLE W/O LIGHT

QUANTITIES TABLE

SITE AND UTILITY QUANTITIES

GRAVEL DRIVE	±37,085 SF
GRAVEL PAD	±9,700 SF
CONCRETE	±1,730 SF
6' TALL CHAIN LINK FENCING	±5,135 LF
12' CHAIN LINK DOUBLE SWING GATE	1
24' CHAIN LINK DOUBLE SWING GATE	1
UNDERGROUND ELECTRICAL WIRING	±1,390 LF
OVERHEAD ELECTRICAL WIRING	±215 LF
UTILITY POLES	6

NOTE:

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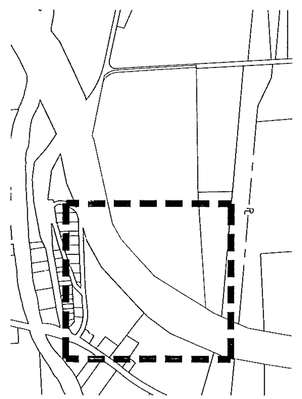

1 C202 KEY PLAN
SCALE: 1" = 750'

N

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2020 NY GREENFIELD PV DESIGN - RILEY ROAD 1
1902 RILEY RD.
CORTLANDVILLE, NY 13045

NO.	DATE	DESCRIPTION
Revisions		

PROJECT NUMBER: 2201200.08
DRAWN BY: JMA
REVIEWED BY: DG
ISSUED FOR: REVIEW
DATE: NOVEMBER 2020
DRAWING NAME:

SITE PLAN (SHEET 2 OF 2)

DRAWING NUMBER:

C202

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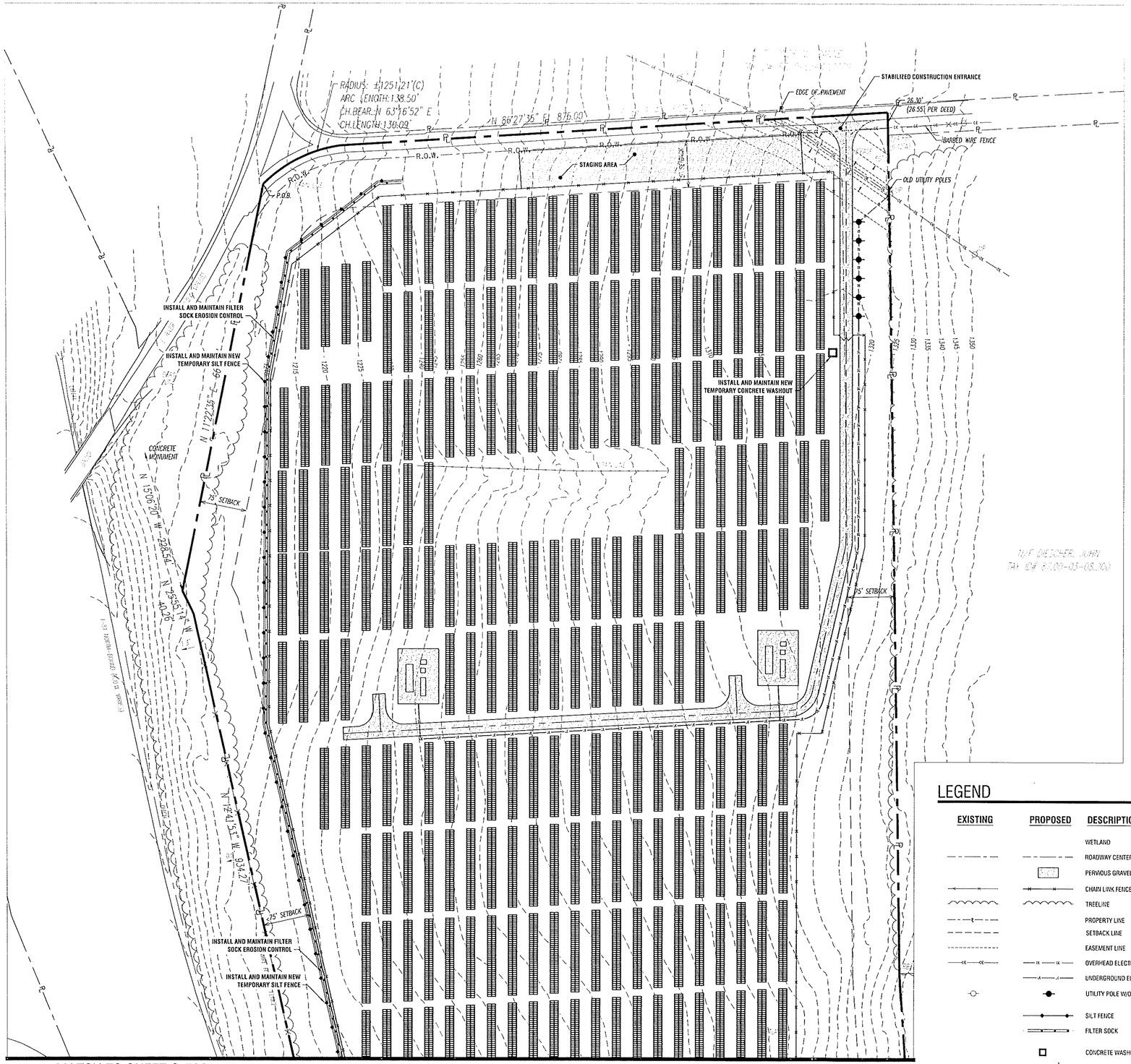


2 C501 EROSION & SEDIMENT CONTROL PLAN
SCALE: 1" = 80'

EROSION & SEDIMENT CONTROL NOTES

1. ALL EROSION CONTROL MEASURES SHALL BE IN ACCORDANCE WITH NEW YORK STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL, AND LOCAL GOVERNING SOIL AND WATER CONSERVATION AGENCY RECOMMENDATIONS AND STANDARDS. CONTRACTOR SHALL SUBMIT PROPOSED EROSION CONTROL PLAN INCLUDING SEQUENCING OF WORK TO THE ENGINEER FOR REVIEW PRIOR TO START OF WORK.
2. UTILIZE CONSTRUCTION METHODS/TECHNIQUES, WHICH WILL LIMIT THE EXPOSED EARTHEN AREAS AND MINIMIZE THE EFFECT OF EARTH DISTURBANCE ACTIVITIES ON SOIL EROSION.
3. RESTRICT DISTURBANCE TO UNDER 5 AC WITHOUT PRIOR WRITTEN APPROVAL FROM THE DEPARTMENT OF ENVIRONMENTAL CONSERVATION.
4. ALL SEDIMENTATION BARRIERS AND OTHER TEMPORARY OR PERMANENT MEASURES SHALL BE IN PLACE PRIOR TO THE START OF CONSTRUCTION. PLANS SHOW THE SUGGESTED MINIMUM MEASURES REQUIRED. EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE ADJUSTED IN THE FIELD AS NEEDED DEPENDING ON CONSTRUCTION SEQUENCE. LOCATIONS TO BE VERIFIED BY STORMWATER INSPECTOR.
5. REMOVAL OF ALL TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE COMPLETED AT THE APPROVAL OF THE OWNER AND ENGINEER. THE COST OF REMOVING THESE MEASURES SHALL ALSO BE INCLUDED IN THE BID PRICE.
6. FOR THE DURATION OF THE PROJECT, THE CONTRACTOR SHALL PROTECT ALL ON-SITE, ADJACENT AND/OR DOWNSTREAM STORM/SANITARY SEWERS, AND/OR OTHER WATER COURSES FROM CONTAMINATION BY WATER BORNE SILTS, SEDIMENTS, FUELS, SOLVENTS, LUBRICANTS OR OTHER POLLUTANTS ORIGINATING FROM ANY WORK DONE ON, OR IN SUPPORT OF THIS PROJECT.
7. DURING CONSTRUCTION NO WET OR FRESH CONCRETE OR LEACHATE SHALL BE ALLOWED TO ESCAPE INTO STORM/SANITARY SEWERS, DITCHES OR OTHER WATERS OF NEW YORK STATE, NOR SHALL WASHOUTS FROM CONCRETE TRUCKS, MIXERS OR OTHER DEVICES BE ALLOWED TO ENTER ANY STORM/SANITARY SEWERS, DITCHES, RIVERS, OR WATER COURSES.
8. ALL EXCAVATED OR IMPORTED EARTHEN STOCKPILES SHALL BE SUITABLY STABILIZED AND PROTECTED BY SILT FENCE SO THAT IT CANNOT REASONABLY ENTER ANY WATER BODY, OR STORM OR SANITARY SEWER.
9. ALL METHODS AND EQUIPMENT PROPOSED BY THE CONTRACTOR TO ACCOMPLISH THE WORK FOR EROSION AND POLLUTION CONTROL SHALL BE SUBJECT TO APPROVAL OF THE ENGINEER OR STORMWATER INSPECTOR.
10. THE CONTRACTOR SHALL BE REQUIRED TO TREAT TRAVELED AREAS TO CONTROL DUST. WATER SHALL BE APPLIED TO SUCH TRAVELED AREAS AS THE ARCHITECT/ENGINEER OR OWNER'S DESIGNATED REPRESENTATIVE MAY DESIGNATE. THE NUMBER OF APPLICATIONS AND THE AMOUNT OF WATER SHALL BE BASED UPON FIELD AND WEATHER CONDITIONS.
11. ALL AREAS OF SOIL DISTURBANCE RESULTING FROM THIS PROJECT WHICH WILL NOT BE SUBJECT TO FURTHER EARTHWORK OR CONSTRUCTION ACTIVITIES SHALL BE PERMANENTLY SEEDED TO ESTABLISH GRASS, AND MULCHED WITH HAY OR STRAW WITHIN ONE WEEK OF FINAL DISTURBANCE. MULCH SHALL BE MAINTAINED UNTIL A SUITABLE VEGETATIVE COVER IS ESTABLISHED.
12. CONTRACTOR STAGING AREAS AND CONSTRUCTION ENTRANCE LOCATIONS SHALL BE COORDINATED WITH THE OWNER PRIOR TO START OF CONSTRUCTION. STABILIZED CONSTRUCTION ENTRANCE(S), AS SHOWN ON THE PLANS SHALL BE PROVIDED. ALL DISTURBED AREAS SHALL BE RESTORED.
13. ALL CATCH BASINS/DRAINAGE INLETS SHALL HAVE EITHER STONED INLET PROTECTION AROUND THEM AND GEOTEXTILE FABRIC OVER THE GRATE OR SEDIMENT SOCKS TO PREVENT SEDIMENTATION FROM ENTERING THE STORM SYSTEM.

QUANTITIES TABLE

EROSION CONTROL QUANTITIES

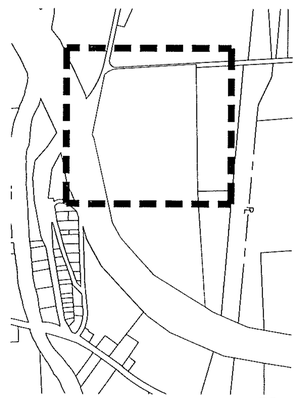
STABILIZED ENTRANCE GRAVEL	±1,915 SF
SILT FENCE	±2,090 LF
FILTER SOCK	±2,0070 LF
CONCRETE WASHOUT	1
TOTAL DISTURBANCE AREA (AREA TO RECEIVE STRAW)	35.8 ACRES

NOTE:

QUANTITIES ARE PROVIDED FOR REFERENCE ONLY, CONTRACTOR TO VERIFY PROPOSED QUANTITIES BASED ON DESIGN PRIOR TO BID.

LEGEND

EXISTING	PROPOSED	DESCRIPTION
		WETLAND
		ROADWAY CENTERLINES
		PERVIOUS GRAVEL PAVEMENT
		CHAIN LINK FENCE
		TREELINE
		PROPERTY LINE
		SETBACK LINE
		EASEMENT LINE
		OVERHEAD ELECTRIC LINE
		UNDERGROUND ELECTRIC LINE
		UTILITY POLE W/O LIGHT
		SILT FENCE
		FILTER SOCK
		CONCRETE WASHOUT
		STABILIZED CONSTRUCTION ENTRANCE (TEMPORARY)



1 C501 KEY PLAN
SCALE: 1" = 750'

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2020 NY GREENFIELD PV DESIGN - RILEY ROAD 1
1902 RILEY RD.
CORTLANDVILLE, NY 13045

NO:	DATE:	DESCRIPTION:
Revisions		

PROJECT NUMBER: 2201200.08
DRAWN BY: JMA
REVIEWED BY: DG
ISSUED FOR: REVIEW
DATE: NOVEMBER 2020
DRAWING NAME:

EROSION & SEDIMENT CONTROL PLAN (SHEET 1 OF 2)

DRAWING NUMBER:

C501

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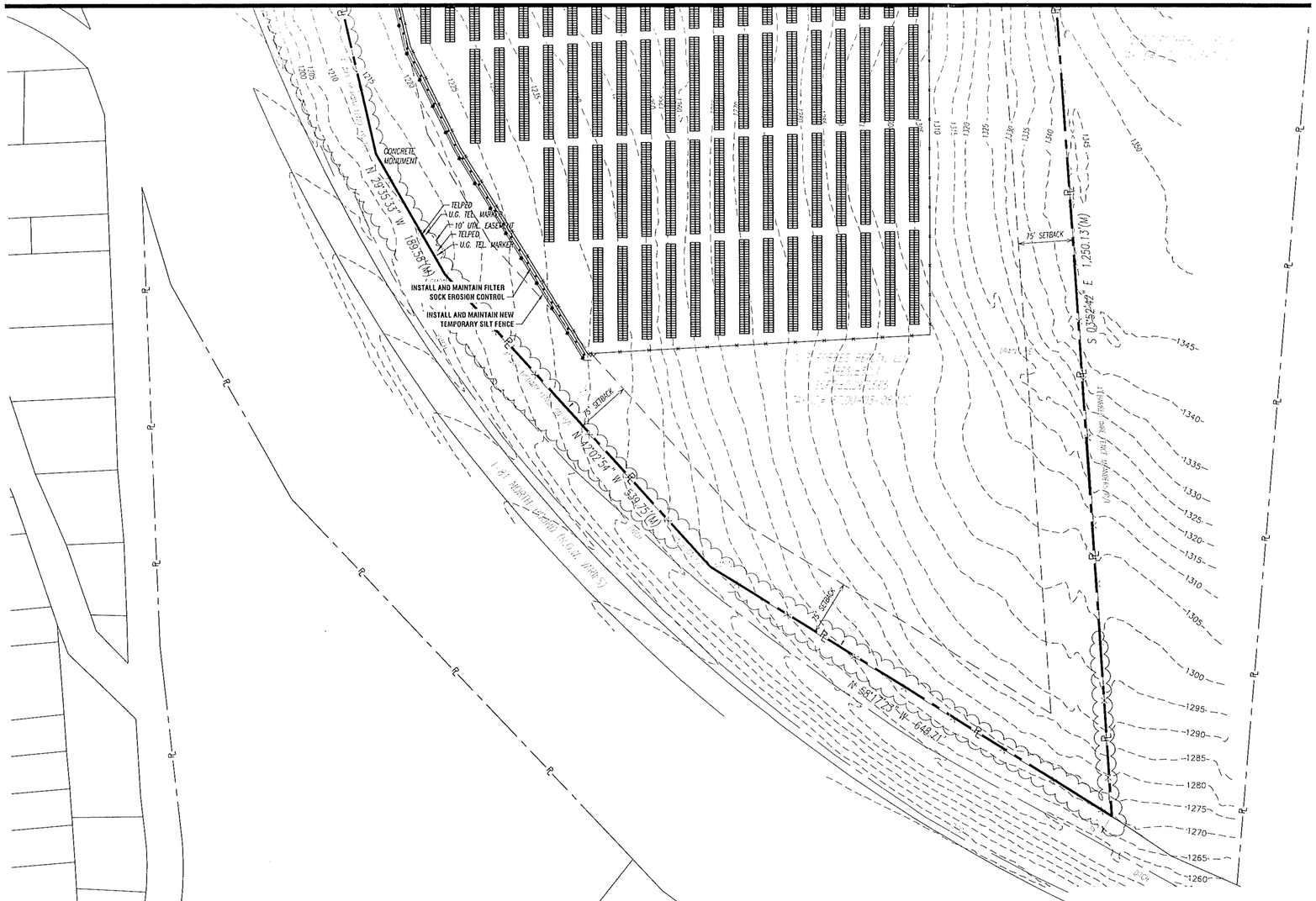
MATCH TO SHEET C-501



EROSION & SEDIMENT CONTROL NOTES

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QUANTITIES TABLE

EROSION CONTROL QUANTITIES

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SILT FENCE	±2,090 LF
FILTER SOCK	±2,0070 LF
CONCRETE WASHOUT	1
TOTAL DISTURBANCE AREA (AREA TO RECEIVE STRAW)	35.8 ACRES

NOTE:

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LEGEND

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		WETLAND
		ROADWAY CENTERLINES
		PERVIOUS GRAVEL PAVEMENT
		CHAIN LINK FENCE
		TREELINE
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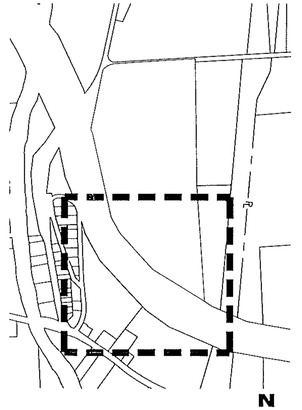
		SETBACK LINE
		EASEMENT LINE
		OVERHEAD ELECTRIC LINE
		UNDERGROUND ELECTRIC LINE
		UTILITY POLE W/O LIGHT
		SILT FENCE
		FILTER SOCK
		CONCRETE WASHOUT
		STABILIZED CONSTRUCTION ENTRANCE (TEMPORARY)



1 C502 KEY PLAN
SCALE: 1" = 750'

2 C502 EROSION & SEDIMENT CONTROL PLAN
SCALE: 1" = 80'

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2020 NY GREENFIELD PV DESIGN - RILEY ROAD 1
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NO:	DATE:	DESCRIPTION:
Revisions		

PROJECT NUMBER: 2201200.08
DRAWN BY: JMA
REVIEWED BY: DG
ISSUED FOR: REVIEW
DATE: NOVEMBER 2020
DRAWING NAME:

EROSION & SEDIMENT CONTROL PLAN (SHEET 2 OF 2)

DRAWING NUMBER:

C502

11/13/2020 6:02:26 PM
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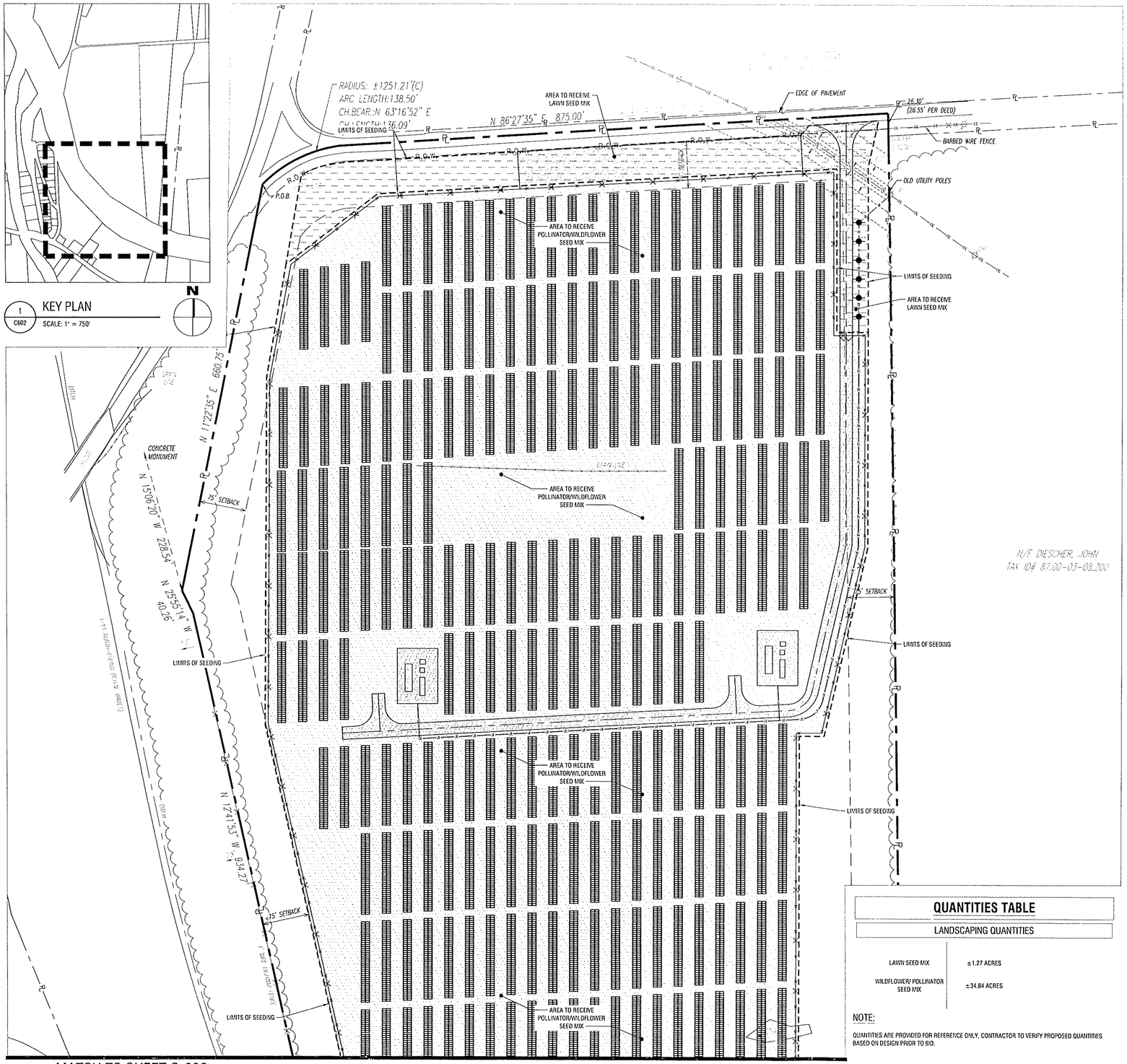
1 C602 KEY PLAN
SCALE: 1" = 750'



2 C601 LANDSCAPING PLAN
SCALE: 1" = 80'

QUANTITIES TABLE

LANDSCAPING QUANTITIES

LAWN SEED MIX	±1.27 ACRES
WILDFLOWER/ POLLINATOR SEED MIX	±34.84 ACRES

NOTE:

QUANTITIES ARE PROVIDED FOR REFERENCE ONLY. CONTRACTOR TO VERIFY PROPOSED QUANTITIES BASED ON DESIGN PRIOR TO BID.

LANDSCAPING NOTES

1. ALL PLANTS SHALL MEET OR EXCEED THE MINIMUM REQUIREMENTS AS NOTED IN THE LATEST EDITION OF AMERICAN STANDARD FOR NURSERY STOCK BY AMERICAN ASSOCIATION OF NURSERYMEN, ANSI Z60.1.
2. REPLACE, IN ACCORDANCE WITH THE DRAWINGS AND SPECIFICATIONS, ALL PLANTS THAT ARE MISSING, DEAD, OR DO NOT DEVELOP FROM PLANTING STOCK, OR AS DETERMINED BY THE CLIENT ARE IN UNHEALTHY OR UNSIGHTLY CONDITION, AND HAVE LOST THEIR NATURAL SHAPE DUE TO DEAD BRANCHES OR OTHER CAUSES DUE TO THE CONTRACTORS NEGLIGENCE. CONTRACTOR SHALL BEAR THE COST OF COMPLETE REPLACEMENT(S). IN CASE OF ANY QUESTIONS REGARDING THE CONDITION AND SATISFACTORY ESTABLISHMENT OF A REJECTED PLANT, THE LANDSCAPE ARCHITECTS DECISION IS FINAL. PROVIDE A GUARANTEE FOR ALL REPLACEMENT PLANTS FOR AT LEAST ONE FULL GROWING SEASON.
3. REMOVE AND IMMEDIATELY REPLACE ALL PLANTS, AS DETERMINED BY THE CLIENT TO BE UNSATISFACTORY DURING THE INITIAL PLANTING INSTALLATION.
4. SHRUBS SHALL MEET THE REQUIREMENTS FOR HEIGHT INDICATED IN THE PLANT LIST. THE MEASUREMENTS FOR HEIGHT SHALL BE TAKEN FROM THE GROUND LEVEL TO THE AVERAGE HEIGHT OF THE TOP BRANCHES OF THE PLANT, AND NOT THE LONGEST BRANCH. SINGLE STEMMED OR THIN PLANTS WILL NOT BE ACCEPTED. SIDE BRANCHES SHALL BE GENEROUS, WELL TWIGGED, AND THE PLANT AS A WHOLE WELL SEATED IN THE GROUND. PLANTS SHALL BE IN A MOIST, VIGOROUS CONDITION, FREE FROM DEAD WOOD, BRUISES, OR OTHER ROOT OR BRANCH INJURIES.
5. A ONE YEAR GUARANTEE SHALL BE PROVIDED FOR ALL NEW AND RELOCATED PLANT MATERIALS FROM DATE OF FINAL ACCEPTANCE TO THE OWNER.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HIS OWN QUANTITY TAKEOFF.
7. THE CONTRACTOR SHALL PERFORM A ROUGH FIELD STAKE OUT OF ALL PLANT MATERIAL AND SHRUB BEDS. CONTACT THE ENGINEER FOR INSPECTION AND APPROVAL. LOCATIONS SHOWN ON THE PLAN CONVEY DESIGN INTENT ONLY. ACTUAL LOCATIONS WILL BE AS DIRECTED BY THE ENGINEER AT THE TIME OF INSTALLATION.
8. NAMES OF WOODY PLANT MATERIAL MUST COMPLY WITH "STANDARDIZED PLANT NAMES" AS ADOPTED BY THE LATEST EDITION OF THE AMERICAN JOINT COMMITTEE OF HORTICULTURAL NOMENCLATURE. PROVIDE STOCK TRUE TO BOTANICAL NAME AND LEGIBLY TAGGED.
9. SHOULD LOCATION OF TREES BE WITHIN 5' OF UNDERGROUND UTILITIES, RELOCATE SAID TREES TO MIN. OF 5' FROM ROOT BALL TO UTILITIES.
10. SHOULD LOCATIONS OF TREES OF LARGER SPECIES BE WITHIN 20' OF OVERHEAD WIRES, RELOCATE SAID TREES TO MIN. OF 20' TO WIRES.
11. STAKE AND WRAP TREES IMMEDIATELY AFTER PLANTING. STAKES AND WRAPPING ARE TO BE REMOVED BY THE CONTRACTOR AT THE END OF THE GUARANTEE PERIOD.
12. MULCH ALL TREES AND SHRUB BEDS WITH 3" DOUBLE GROUND HARDWOOD BAR. COLOR: DARK BROWN. 'RIVER STONE' SURFACE SHALL BE SMOOTH, WASHED, GRADED GRAVEL, 1" TO 2" SIZE. PLACE ON FIBER MAT WEED BARRIER: MIRAFI 100X OR EQUAL.
13. PLANTING BACK FILL MIXTURE: 4 PARTS TOP SOIL; 1 PART PEAT MOSS; 1/2 PART WELL ROTTED MANURE; 10 LBS. 5-10-5 PLANTING FERTILIZER THOROUGHLY MIXED PER CUBIC YARD.
14. TOPSOIL SHALL BE FURNISHED FROM THE STOCKPILED ON-SITE MATERIAL. ON-SITE MATERIAL IS TO BE MECHANICALLY SCREENED, ANYTHING LARGER THAN 0.5" SHALL BE REMOVED AND DISPOSED. IF AN INSUFFICIENT QUANTITY EXISTS, FURNISH FROM OFF-SITE SOURCES IN QUANTITIES SUFFICIENT TO COMPLETE THE REQUIREMENTS AS SPECIFIED. TOPSOIL SHALL BE NATURAL, FRIABLE, FERTILE SOIL, CHARACTERISTIC OF PRODUCTIVE SOIL IN THE VICINITY, FREE FROM STONES, CLAY LUMPS, ROOTS AND OTHER FOREIGN MATTER WITH AN ACIDITY BETWEEN 6.0 AND 6.8 pH. PROPOSED TOPSOIL MATERIAL FROM OFF-SITE SOURCES SHALL BE MECHANICALLY SCREENED SUBJECT TO APPROVAL BY THE ENGINEER.
15. A MINIMUM OF 6" OF MECHANICALLY SCREENED TOPSOIL SHALL BE PROVIDED ON ALL AREAS TO BE SEEDED.
16. LAWN SEED MIXTURE- APPLY TO ALL AREAS NOT PAVED, PLANTED, DESIGNATED TO REMAIN NATURAL OR OTHERWISE SEEDED. MIX SHALL CONSIST OF THE FOLLOWING.

	% WEIGHT	% PURITY	% GERMINATION
KEYSTONE PERRENIAL RYEGRASS	25	85	85
CHARISMATIC PERRENIAL RYEGRASS	25	85	85
CINDY LOU CREEPING RED FESCUE	20	85	80
COMMON KENTUCKY BLUEGRASS	30	97	80

SEEDING RATE: 200 LBS. PER ACRE
FERTILIZER: 18:24:3 GRANULAR RATE: 1,000 LBS. PER ACRE
MULCH ALL SEEDED AREAS WITH APPROVED STRAW AT A RATE OF 4,000 LBS. PER ACRE.

17. POLLINATOR/WILDFLOWER/LOW GROW MAINTENANCE SEED MIXTURE- APPLY TO ALL DESIGNATED AREAS ONLY. THE MIXTURE SHALL CONSIST OF THE FOLLOWING.

35% FIREFLY HARD FESCUE
20% INTRIGUE CHEWINGS FESCUE
20% EUREKA II HARD FESCUE
10% MINOTAUR HARD FESCUE
15% XERCES NORTHEASTERN POLLINATOR MIX. ERNST-179, ERNST SEEDS, MEADVILLE, PA

SEEDING RATE: 50 LBS. PER ACRE
FERTILIZER: 28:4:12 GRANULAR RATE: 1,000 LBS. PER ACRE
MULCH ALL SEEDED AREAS WITH APPROVED STRAW AT A RATE OF 4,000 LBS. PER ACRE.

18. LANDSCAPE MATERIALS SHALL BE INSTALLED BY LOCAL COMPANIES FAMILIAR WITH THE CONDITIONS IN THIS AREA THAT EMPLOY NYS CERTIFIED NURSERY PROFESSIONALS.
19. STAKE PLANTS AS INDICATED OR AS APPROVED IN THE FIELD. IF OBSTRUCTIONS ARE ENCOUNTERED THAT ARE NOT SHOWN ON THE DRAWINGS, DO NOT PROCEED PLANTING OPERATIONS UNTIL ALTERNATIVE PLANT LOCATIONS HAVE BEEN SELECTED.
20. MAINTAIN PLANTS UNTIL COMPLETION AND FINAL ACCEPTANCE OF THE ENTIRE PROJECT. MAINTENANCE SHALL INCLUDE PRUNING, CULTIVATING, EDGING, REMULCHING, FERTILIZING, WEEDING, WATERING AS REQUIRED FOR HEALTHY GROWTH, AND APPLICATION OF APPROPRIATE INSECTICIDES AND FUNDICIDES NECESSARY TO MAINTAIN PLANTS FREE OF INSECT AND DISEASE. RESET SETTLED PLANTS TO PROPER GRADE AND POSITION. RESTORE PLANTING SAUCER AND REMOVE DEAD MATERIAL. TIGHTEN AND REPAIR GUIDE WIRES AND DEFICIENCIES WITHIN THE FIRST 24 HOURS OF INITIAL PLANTING, AND NOT LESS THAN TWICE PER WEEK UNTIL FINAL ACCEPTANCE.
21. FINAL LOCATION OF TREES AND OTHER LANDSCAPING SHALL BE DETERMINED IN THE FIELD BASED ON UTILITY STAKEOUT. LANDSCAPING SHALL BE PLACED SO AS NOT TO CONFLICT WITH UTILITIES.

LEGEND

EXISTING	PROPOSED	DESCRIPTION
		WETLAND
		ROADWAY CENTERLINES
		GRAVEL PAVEMENT
		CHAIN LINK FENCE
		TREELINE
BLDG		BUILDING/STRUCTURE
		PROPERTY LINE
		SETBACK LINE
		TREE
		END SECTION
		UTILITY POLE W/O LIGHT
		LAWN SEED MIX
		WILDFLOWER/ POLLINATOR SEED MIX

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700 UNIVERSE BLVD.
JUNO BEACH, FL 33408

NEXTera ENERGY

2020 NY GREENFIELD PV DESIGN - RILEY ROAD 1
1902 RILEY RD.
CORTLANDVILLE, NY 13045

NO.	DATE:	DESCRIPTION:
Revisions		

PROJECT NUMBER: 2201200.08
DRAWN BY:
REVIEWED BY:
ISSUED FOR: REVIEW
DATE: NOVEMBER 2020
DRAWING NAME:

LANDSCAPING PLAN (SHEET 1 OF 2)

DRAWING NUMBER:

C601

11/13/2020 6:03:38 PM
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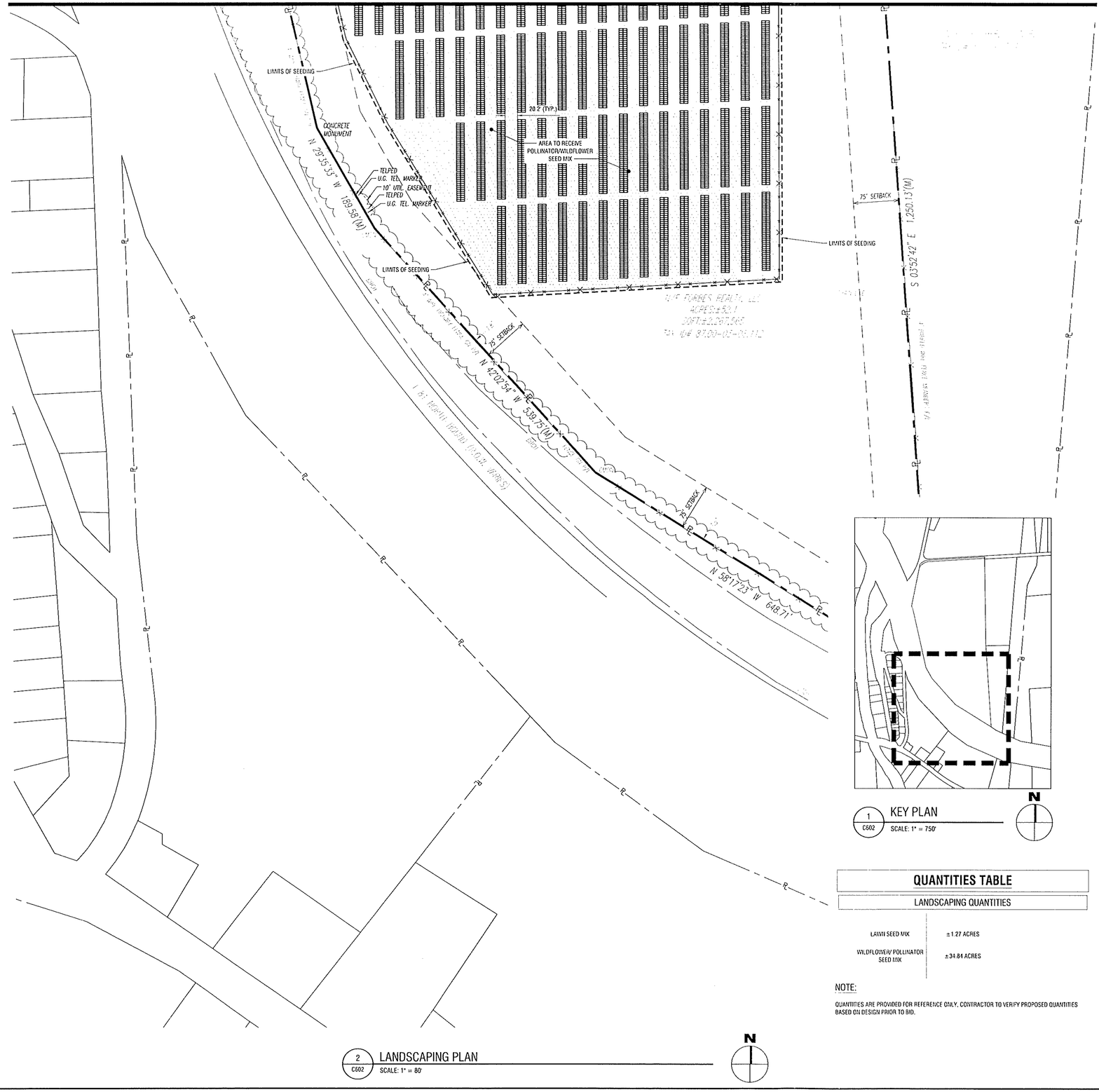
MATCH TO SHEET C-601



QUANTITIES TABLE

LANDSCAPING QUANTITIES

LAWN SEED MIX	±1.27 ACRES
WILDFLOWER/ POLLINATOR SEED MIX	±34.84 ACRES

NOTE:

QUANTITIES ARE PROVIDED FOR REFERENCE ONLY. CONTRACTOR TO VERIFY PROPOSED QUANTITIES BASED ON DESIGN PRIOR TO BID.

LANDSCAPING NOTES

1. ALL PLANTS SHALL MEET OR EXCEED THE MINIMUM REQUIREMENTS AS NOTED IN THE LATEST EDITION OF AMERICAN STANDARD FOR NURSERY STOCK BY AMERICAN ASSOCIATION OF NURSERYMEN, ANSI Z60.1.
2. REPLACE, IN ACCORDANCE WITH THE DRAWINGS AND SPECIFICATIONS, ALL PLANTS THAT ARE MISSING, DEAD, OR DO NOT DEVELOP FROM PLANTING STOCK, OR AS DETERMINED BY THE CLIENT ARE IN UNHEALTHY OR UNSIGHTLY CONDITION, AND HAVE LOST THEIR NATURAL SHAPE DUE TO DEAD BRANCHES OR OTHER CAUSES DUE TO THE CONTRACTORS NEGLIGENCE. CONTRACTOR SHALL BEAR THE COST OF COMPLETE REPLACEMENT(S). IN CASE OF ANY QUESTIONS REGARDING THE CONDITION AND SATISFACTORY ESTABLISHMENT OF A REJECTED PLANT, THE LANDSCAPE ARCHITECT'S DECISION IS FINAL. PROVIDE A GUARANTEE FOR ALL REPLACEMENT PLANTS FOR AT LEAST ONE FULL GROWING SEASON.
3. REMOVE AND IMMEDIATELY REPLACE ALL PLANTS, AS DETERMINED BY THE CLIENT TO BE UNSATISFACTORY DURING THE INITIAL PLANTING INSTALLATION.
4. SHRUBS SHALL MEET THE REQUIREMENTS FOR HEIGHT INDICATED IN THE PLANT LIST. THE MEASUREMENTS FOR HEIGHT SHALL BE TAKEN FROM THE GROUND LEVEL TO THE AVERAGE HEIGHT OF THE TOP BRANCHES OF THE PLANT, AND NOT THE LONGEST BRANCH. SINGLE STEMMED OR THIN PLANTS WILL NOT BE ACCEPTED. SIDE BRANCHES SHALL BE GENEROUS, WELL TWIGGED, AND THE PLANT AS A WHOLE WELL SEATED IN THE GROUND. PLANTS SHALL BE IN A MOIST, VIGOROUS CONDITION, FREE FROM DEAD WOOD, BRUISES, OR OTHER ROOT OR BRANCH INJURIES.
5. A ONE YEAR GUARANTEE SHALL BE PROVIDED FOR ALL NEW AND RELOCATED PLANT MATERIALS FROM DATE OF FINAL ACCEPTANCE TO THE OWNER.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HIS OWN QUANTITY TAKEOFF.
7. THE CONTRACTOR SHALL PERFORM A ROUGH FIELD STAKE OUT OF ALL PLANT MATERIAL AND SHRUB BEDS. CONTACT THE ENGINEER FOR INSPECTION AND APPROVAL. LOCATIONS SHOWN ON THE PLAN CONVEY DESIGN INTENT ONLY. ACTUAL LOCATIONS WILL BE AS DIRECTED BY THE ENGINEER AT THE TIME OF INSTALLATION.
8. NAMES OF WOODY PLANT MATERIAL MUST COMPLY WITH "STANDARDIZED PLANT NAMES" AS ADOPTED BY THE LATEST EDITION OF THE AMERICAN JOINT COMMITTEE OF HORTICULTURAL NOMENCLATURE. PROVIDE STOCK TRUE TO BOTANICAL NAME AND LEGIBLY TAGGED.
9. SHOULD LOCATION OF TREES BE WITHIN 5' OF UNDERGROUND UTILITIES, RELOCATE SAID TREES TO MIN. OF 5' FROM ROOT BALL TO UTILITIES.
10. SHOULD LOCATIONS OF TREES OF LARGER SPECIES BE WITHIN 20' OF OVERHEAD WIRES, RELOCATE SAID TREES TO MIN. OF 20' TO WIRES.
11. STAKE AND WRAP TREES IMMEDIATELY AFTER PLANTING. STAKES AND WRAPPING ARE TO BE REMOVED BY THE CONTRACTOR AT THE END OF THE GUARANTEE PERIOD.
12. MULCH ALL TREES AND SHRUB BEDS WITH 3" DOUBLE GROUND HARDWOOD BAR. COLOR: DARK BROWN. "RIVER STONE" SURFACE SHALL BE SMOOTH, WASHED, GRADED GRAVEL, 1" TO 2" SIZE. PLACE ON FIBER MAT WEED BARRIER: MIRAFI 100X OR EQUAL.
13. PLANTING BACK FILL MIXTURE: 4 PARTS TOP SOIL; 1 PART PEAT MOSS; 1/2 PART WELL ROTTED MANURE; 10 LBS. 5-10-5 PLANTING FERTILIZER THOROUGHLY MIXED PER CUBIC YARD.
14. TOPSOIL SHALL BE FURNISHED FROM THE STOCKPILED ON-SITE MATERIAL. ON-SITE MATERIAL IS TO BE MECHANICALLY SCREENED, ANYTHING LARGER THAN 0.5" SHALL BE REMOVED AND DISPOSED. IF AN INSUFFICIENT QUANTITY EXISTS, FURNISH FROM OFF-SITE SOURCES IN QUANTITIES SUFFICIENT TO COMPLETE THE REQUIREMENTS AS SPECIFIED. TOPSOIL SHALL BE NATURAL, FRIABLE, FERTILE SOIL CHARACTERISTIC OF PRODUCTIVE SOIL IN THE VICINITY, FREE FROM STONES, CLAY LUMPS, ROOTS AND OTHER FOREIGN MATTER WITH AN ACIDITY BETWEEN 6.0 AND 6.8 pH. PROPOSED TOPSOIL MATERIAL FROM OFF-SITE SOURCES SHALL BE MECHANICALLY SCREENED SUBJECT TO APPROVAL BY THE ENGINEER.
15. A MINIMUM OF 6" OF MECHANICALLY SCREENED TOPSOIL SHALL BE PROVIDED ON ALL AREAS TO BE SEEDED.
16. LAWN SEED MIXTURE- APPLY TO ALL AREAS NOT PAVED, PLANTED, DESIGNATED TO REMAIN NATURAL OR OTHERWISE SEEDED. MIX SHALL CONSIST OF THE FOLLOWING.

	% WEIGHT	% PURITY	% GERMINATION
KEYSTONE PERRENIAL RYEGRASS	25	85	85
CHARISMATIC PERRENIAL RYEGRASS	25	85	85
CINDY LOU CREEPING RED FESCUE	20	85	80
COMMON KENTUCKY BLUEGRASS	30	97	80

SEEDING RATE: 200 LBS. PER ACRE
FERTILIZER: 18-24-3 GRANULAR RATE: 1,000 LBS. PER ACRE
MULCH ALL SEEDED AREAS WITH APPROVED STRAW AT A RATE OF 4,000 LBS. PER ACRE.

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2020 NY GREENFIELD PV DESIGN - RILEY ROAD 1
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NO:	DATE:	DESCRIPTION:
Revisions		

PROJECT NUMBER: 2201200.08
DRAWN BY:
REVIEWED BY:
ISSUED FOR: REVIEW
DATE: NOVEMBER 2020
DRAWING NAME:

LANDSCAPING PLAN (SHEET 2 OF 2)

DRAWING NUMBER:

C602

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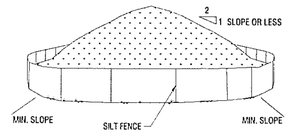
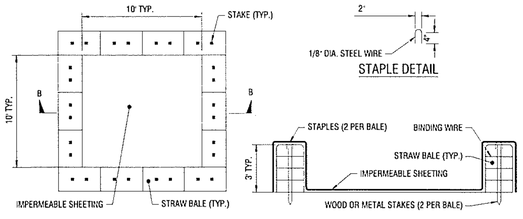


NOTES:

1. AREA CHOSEN FOR STOCKPILING OPERATIONS SHALL BE DRY AND STABLE.
2. MAXIMUM SLOPE OF STOCKPILE SHALL BE 1V:2H.
3. UPON COMPLETION OF SOIL STOCKPILING, EACH PILE SHALL BE SURROUNDED WITH SILT FENCING, THEN STABILIZED WITH VEGETATION OR COVERED.
4. SEE SPECIFICATIONS AND DETAIL FOR INSTALLATION OF SILT FENCE.

4 C-702 TEMPORARY SOIL STOCKPILE

N.T.S.



NOTE:

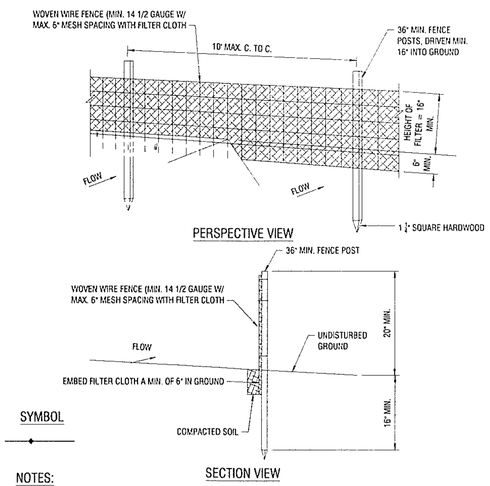
1. CAN BE TWO STACKED BALES OR PARTIALLY EXCAVATED TO REACH 3 FT DEPTH

CONSTRUCTION SPECIFICATIONS

1. LOCATE WASHOUT STRUCTURE A MINIMUM OF 100 FEET AWAY FROM OPEN CHANNELS, STORM DRAIN INLETS, SENSITIVE AREAS, WETLANDS, BUFFERS AND WATER COURSES AND AWAY FROM CONSTRUCTION TRAFFIC.
2. SIZE WASHOUT STRUCTURE FOR VOLUME NECESSARY TO CONTAIN WASH WATER AND SOLIDS AND MAINTAIN AT LEAST 4 INCHES OF FREEBOARD. TYPICAL DIMENSIONS ARE 10 FEET X 10 FEET X 3 FEET DEEP.
3. PREPARE SOIL BASE FREE OF ROCKS OR OTHER DEBRIS THAT MAY CAUSE TEARS OR HOLES IN THE LINER. FOR LINER, USE 10 MIL OR THICKER UV RESISTANT, IMPERMEABLE SHEETING, FREE OF HOLES AND TEARS OR OTHER DEFECTS THAT COMPROMISE IMPERMEABILITY OF THE MATERIAL.
4. PROVIDE A SIGN FOR THE WASHOUT IN CLOSE PROXIMITY TO THE FACILITY.
5. KEEP CONCRETE WASHOUT STRUCTURE WATER TIGHT. REPLACE IMPERMEABLE LINER IF DAMAGED (E.G., RIPPED OR PUNCTURED). EMPTY OR REPLACE WASHOUT STRUCTURE THAT IS 75 PERCENT FULL, AND DISPOSE OF ACCUMULATED MATERIAL PROPERLY. DO NOT REUSE PLASTIC LINER. WET-VACUUM STORED LIQUIDS THAT HAVE NOT EVAPORATED AND DISPOSE OF IN AN APPROVED MANNER, PRIOR TO FORECASTED RAINSTORMS, REMOVE LIQUIDS OR COVER STRUCTURE TO PREVENT OVERFLOWS. REMOVE HARDENED SOLIDS, WHOLE OR BROKEN UP, FOR DISPOSAL OR RECYCLING. MAINTAIN RUNOFF DIVERSION AROUND EXCAVATED WASHOUT STRUCTURE UNTIL STRUCTURE IS REMOVED.

3 C-702 CONCRETE WASHOUT AREA WITH STRAW BALES

N.T.S.

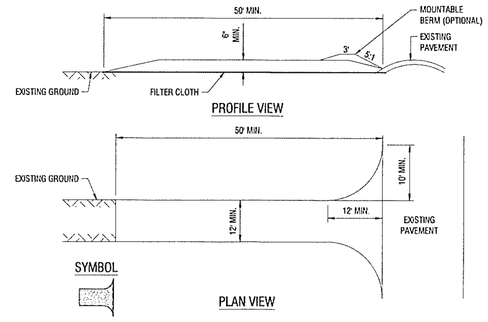


NOTES:

1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES. POSTS SHALL BE STEEL EITHER "T" OR "U" TYPE OR HARDWOOD.
2. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION. FENCE SHALL BE WOVEN WIRE, 6" MAXIMUM MESH OPENING.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVER-LAPPED BY SIX INCHES AND FOLDED. FILTER CLOTH SHALL BE EITHER FILTER X, MIRAFI 100X, STABLINKA 140N, OR APPROVED EQUAL.
4. PREFABRICATED UNITS SHALL BE GEOFAB, ENVIROFENCE, OR APPROVED EQUAL.
5. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

2 C-702 SILT FENCE

NYS DEC DETAIL: SILT FENCE



CONSTRUCTION SPECIFICATIONS:

1. STONE SIZE - USE 1-4 INCH STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH - NOT LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY).
3. THICKNESS - NOT LESS THAN SIX (6) INCHES.
4. WIDTH - TWELVE (12) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. TWENTY-FOUR (24) FOOT IF SINGLE ENTRANCE TO SITE.
5. GEOTEXTILE - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
6. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ACCESS SHALL BE PIPED BENEATH THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT OF WAY. ALL SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED ONTO PUBLIC RIGHTS OF WAY MUST BE REMOVED IMMEDIATELY.
8. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN EVENT.

1 C-702 STABILIZED CONSTRUCTION ENTRANCE

NYS DEC DETAIL: STABILIZED CONSTRUCTION ACCESS

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DRAWING NAME:

CONSTRUCTION DETAILS

DRAWING NUMBER:

C702

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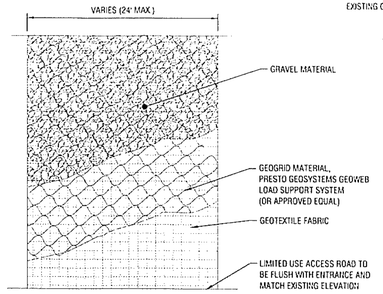
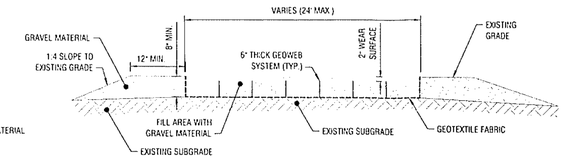


PLAN



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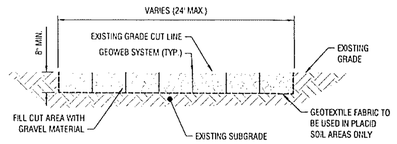

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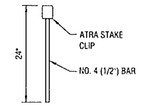

ATRA ANCHOR

GENERAL NOTES:

1. PROVIDE A 4800 LB/FT ENCHANCED WOVEN GEOTEXTILE SEPERATION LAYER AND INSTALL PERMANUFACTURER RECOMMENDATIONS INCLUDING OVERLAPS BASED ON SUB GRADE CBR.
2. THE GEOWEB PANELS SHALL BE CONNECTED WITH ATRA KEYS OF EACH INTERLEAF AND END TO END CONNECTION.
3. PROVIDE ATRA ANCHORS TO KEEP PANELS OPEN FOR INFILL AS REQUIRED.
4. GEOWEB INFILL SHALL BE 3/4" TO 1.5" CRUSHED AGGREGATE WITH FINES LIMITED TO LESS THAN 10% TO ALLOW FREE DRAINAGE.
5. LIMIT THE DROP OF INFILL TO PREVENT PANEL DISTORTION.
6. ASSUME HS-20 LOADING.

PERMEABLE ACCESS ROAD GENERAL NOTES:

1. USE OF THIS DETAIL/CRITERION IS LIMITED TO ACCESS ROADS USED ON AN OCCASIONAL BASIS ONLY (I.E. PROVIDE ACCESS FOR MOWING EQUIPMENT REPAIR OR MAINTENANCE, ETC.)
2. LIMITED USE PERVIOUS ACCESS ROAD IS LIMITED TO LOW IMPACT IRREGULAR MAINTENANCE ACCESS ASSOCIATED WITH RENEWABLE ENERGY PROJECTS IN NEW YORK STATE.
3. REMOVE STUMPS, ROCKS AND DEBRIS AS NECESSARY, FILL VOIDS TO MATCH EXISTING NATIVE SOILS AND COMPACTION LEVEL.
4. REMOVED TOPSOIL MAY BE SPREAD IN ADJACENT AREAS AS DIRECTED BY THE PROJECT ENGINEER. COMPACT TO THE DEGREE OF THE NATIVE INSITU SOIL. DO NOT PLACE IN AN AREA THAT IMPEDES STORMWATER DRAINAGE.
5. GRADE ROADWAY, WHERE NECESSARY, TO NATIVE SOIL AND DESIRED ELEVATION. MINOR GRADING FOR CROSS SLOPE CUT AND FILL MAY BE REQUIRED.
6. REMOVE REFUSE SOILS AS DIRECTED BY THE PROJECT ENGINEER. DO NOT PLACE IN AN AREA THAT IMPEDES STORMWATER DRAINAGE.
7. ROADWAY WIDTH TO BE DETERMINED BY CLIENT.
8. THE LIMITED USE PERVIOUS ACCESS ROAD CROSS SLOPE SHALL BE 2% IN MOST CASES AND SHOULD NOT EXCEED 5%. THE LONGITUDINAL SLOPE OF THE ACCESS DRIVE SHOULD NOT EXCEED 15%.
9. LIMITED USE PERVIOUS ACCESS ROAD IS NOT INTENDED TO BE UTILIZED FOR CONSTRUCTION WHICH MAY SUBJECT THE ACCESS TO SEDIMENT TRACKING. THIS SPECIFICATION IS TO BE DEVELOPED FOR POST-CONSTRUCTION USE, SOIL RESTORATION PRACTICES MAY BE APPLICABLE TO RESTORE CONSTRUCTION RELATED COMPACTION TO PRE-EXISTING CONDITIONS AND SHOULD BE VERIFIED BY SOIL PENETROMETER READINGS. THE PENETROMETER READINGS SHALL BE COMPARED TO THE RESPECTIVE RECORDED READINGS TAKEN PRIOR TO CONSTRUCTION, EVERY 100 LINEAR FEET ALONG THE PROPOSED ROADWAY.
10. TO ENSURE THAT SOIL IS NOT TRACKED ONTO THE LIMITED USE PERVIOUS ACCESS ROAD, IT SHALL NOT BE USED BY CONSTRUCTION VEHICLES TRANSPORTING SOIL, FILL MATERIAL, ETC. IF THE LIMITED USE PERVIOUS ACCESS IS COMPLETED DURING INITIAL PHASES OF CONSTRUCTION, A STANDARD NEW YORK STATE STABILIZED CONSTRUCTION ACCESS SHALL BE CONSTRUCTED AND UTILIZED TO REMOVE SEDIMENT FROM CONSTRUCTION VEHICLES AND EQUIPMENT PRIOR TO ENTERING THE LIMITED USE PERVIOUS ACCESS ROAD FROM ANY LOCATION ON, OR OFF SITE. MAINTENANCE OF THE PERVIOUS ACCESS ROAD WILL BE REQUIRED IF SEDIMENT IS OBSERVED WITHIN THE CLEAN STONE.
11. THE LIMITED USE PERVIOUS ACCESS ROAD SHALL NOT BE CONSTRUCTED OR USED UNTIL ALL AREAS SUBJECT TO RUNOFF ONTO THE PERVIOUS ACCESS HAVE ACHIEVED FINAL STABILIZATION.
12. PROJECTS SHOULD AVOID INSTALLATION OF THE LIMITED USE PERVIOUS ACCESS ROAD IN POORLY DRAINED AREAS, HOWEVER IF NO ALTERNATIVE LOCATION IS AVAILABLE, THE PROJECT SHALL UTILIZE WOVEN GEOTEXTILE MATERIAL AS DETAILED IN FOLLOWING NOTES.
13. THE DRAINAGE DITCH IS OFFERED IN THE DETAIL FOR CIRCUMSTANCES WHEN CONCENTRATED FLOW COULD NOT BE AVOIDED. THE INTENTION OF THIS DESIGN IS TO MINIMIZE ALTERATIONS TO HYDROLOGY, HOWEVER WHEN DEALING WITH 5%-15% GRADES NOT PARALLEL TO THE CONTOUR, A ROADSIDE DITCH MAY BE REQUIRED. THE NYS STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROLS FOR GRASSED WATERWAYS AND VEGETATED WATERWAYS ARE APPLICABLE FOR SIZING AND STABILIZATION. DIMENSIONS FOR THE GRASSED WATERWAY SPECIFICATION WOULD BE DESIGNED FOR PROJECT SPECIFIC HYDROLOGIC RUNOFF CALCULATIONS, AND A SEPARATE DETAIL FOR THE SPECIFIC GRASSED WATERWAY WOULD BE INCLUDED IN THIS PRACTICE. RUNOFF DISCHARGES WILL BE SUBJECT TO THE OUTLET REQUIREMENTS OF THE REFERENCED STANDARD. INCREASED POST-DEVELOPMENT RUNOFF FROM THE ASSOCIATED ROADSIDE DITCH MAY REQUIRE ADDITIONAL PRACTICES TO ATTENUATE RUNOFF TO PRE-DEVELOPMENT CONDITIONS.
14. IF A ROADSIDE DITCH IS NOT UTILIZED TO CAPTURE RUNOFF FROM THE ACCESS ROAD, THE PERVIOUS ACCESS ROAD WILL HAVE A WELL-ESTABLISHED PERENNIAL VEGETATIVE COVER, WHICH SHALL CONSIST OF UNIFORM VEGETATION (I.E. BUFFER), 20 FEET WIDE AND PARALLEL TO THE DOWN GRADIENT SIDE OF THE ACCESS ROAD. POST-CONSTRUCTION OPERATION AND MAINTENANCE PRACTICES WILL MAINTAIN THIS VEGETATIVE COVER TO ENSURE FINAL STABILIZATION FOR THE LIFE OF THE ACCESS ROAD.
15. THE DESIGN PROFESSIONAL MUST ACCOUNT FOR THE LIMITED USE PERVIOUS ACCESS ROAD IN THEIR SITE ASSESSMENT/HYDROLOGY ANALYSIS. IF THE HYDROLOGY ANALYSIS SHOWS THAT THE HYDROLOGY HAS BEEN ALTERED FROM PRE- TO POST-DEVELOPMENT CONDITIONS (SEE APPENDIX A OF GP-0-20-001 FOR THE DEFINITION OF "ALTER THE HYDROLOGY…"), THE DESIGN MUST INCLUDE THE NECESSARY DETENTION/RETENTION PRACTICES TO ATTENUATE THE RATES (10 AND 100 YEAR EVENTS) TO PRE-DEVELOPMENT CONDITIONS.

GEOGRID MATERIAL NOTES:

1. THE GEOGRID, OR COMPARABLE PRODUCT, IS INTENDED FOR USE FOR ALL CONDITIONS, IN ORDER TO ASSIST IN MATERIAL SEPARATION FROM NATIVE SOILS AND PRESERVE ACCESS LOADS.
2. GRAVEL FILL MATERIAL SHALL CONSIST OF 1-4" CLEAN, DURABLE, SHARP-ANGLED CRUSHED STONE OF UNIFORM QUALITY, MEETING THE SPECIFICATIONS OF NYSDOT ITEM 703-02, SIZE DESIGNATION 3-5 OF TABLE 703-4. STONE MAY BE PLACED IN FRONT OF, AND SPREAD WITH, A TRACKED VEHICLE. GRAVEL SHALL NOT BE COMPACTED.
3. GEOGRID SHALL BE MIRAFI BXG110 OR APPROVED EQUAL. GEOGRID SHALL BE DESIGNED BASED ON EXISTING SOIL CONDITIONS AND PROPOSED HAUL ROAD SLOPES.
4. IF MORE THAN ONE ROLL WIDTH IS REQUIRED, ROLLS SHOULD OVERLAP A MINIMUM OF SIX INCHES.
5. REFER TO MANUFACTURER'S SPECIFICATION FOR PROPER TYING AND CONNECTIONS.
6. LIMITED USE PERVIOUS ACCESS ROAD SHALL BE TOP DRESSED AS REQUIRED WITH ONLY 1-4" CRUSHED STONE MEETING NYSDOT ITEM 703-02 SPECIFICATIONS.

BASIS OF DESIGN: TENCATE MIRAFI BXG110 GEOGRIDS; 365 SOUTH HOLLAND DRIVE, PENDERGRASS, GA; 800-685-9990 OR 706-693-2226; WWW.MIRAFI.COM

GEOWEB MATERIAL NOTES:

1. THE GEOWEB, OR COMPARABLE PRODUCT, IS SUGGESTED FOR USE ON ROAD PROFILES EXCEEDING 10%. THE GEOWEB PRODUCT IS INTENDED TO LIMIT SHIFTING STONE MATERIAL DURING USE.
2. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
3. WHERE REQUIRED, A NATIVE SOIL WEDGE SHALL BE PLACED TO ACCOMMODATE ROAD CROSS SLOPE OF 2%. NATIVE SOIL SHALL BE COMPACTED TO MATCH EXISTING SOIL CONDITIONS.
4. GRAVEL FILL MATERIAL SHALL CONSIST OF 1-4" CLEAN, DURABLE, SHARP-ANGLED CRUSHED STONE OF UNIFORM QUALITY, MEETING THE SPECIFICATIONS OF NYSDOT ITEM 703-02, SIZE DESIGNATION 3-5 OF TABLE 703-4. STONE MAY BE PLACED IN FRONT OF, AND SPREAD WITH, A TRACKED VEHICLE. GRAVEL SHALL NOT BE COMPACTED.
5. GEOWEB SYSTEM SHALL BE PRESTO GEOSYSTEM GEOWEB OR APPROVED EQUAL. GEOWEB SHALL BE DESIGNED BASED ON EXISTING SOIL CONDITIONS AND PROPOSED HAUL ROAD SLOPES.
6. LIMITED USE PERVIOUS ACCESS ROAD SHALL BE TOP DRESSED AS REQUIRED WITH ONLY 1-4" CRUSHED STONE, SIZE 3A, MEETING NYSDOT ITEM 703-02 SPECIFICATIONS.
7. THE TOP EDGES OF ADJACENT CELL WALLS SHALL BE FLUSH WHEN CONNECTING. ALIGN THE I-SLOTS FOR INTERLEAF AND END TO END CONNECTIONS. THE GEOWEB PANELS SHALL BE CONNECTED WITH ATRA KEYS AT EACH INTERLEAD AND END TO END CONNECTIONS. REFER TO MANUFACTURER'S SPECIFICATION FOR PROPER INSTALLATION, TYING AND CONNECTIONS.
8. PREPARE THE SUBGRADE AS SHOWN ON THE CONSTRUCTION DRAWINGS.
9. COMPACT THE SOIL TO A MINIMUM 95% STANDARD PROCTOR.
10. VERIFY THAT THE SUBGRADE STRENGTH. IF UNACCEPTABLE, THE SOILS SHALL BE REMOVED AND REPLACED AS DIRECTED BY THE ENGINEER.
11. WHERE REQUIRED, PROVIDE GEOTEXTILE SEPARATION LAYER.
12. EXPAND THE GEOWEB SECTIONS INTO POSITION AND CONNECT THE END TO END INTERLEAF CONNECTIONS WITH ATRA KEYS.
13. PLACE THE SPECIFIED INFILL MATERIAL TO 2 INCHES ABOVE CELL WALLS AND COMPACT TO A MINIMUM 95% STANDARD PROCTOR.
14. PROVIDE ADDITIONAL SURFACE MATERIAL, AS SPECIFIED.

BASIS OF DESIGN: PRESTO GEOSYSTEMS GEOWEB; 670 NORTH PERKINS STREET, APPLETON, WI; 800-548-3424 OR 920-738-1222; INFOR@PRESTOGEO.COM; WWW.PRESTOGEO.COM

WOVEN GEOTEXTILE MATERIAL NOTES:

1. SPECIFIED GEOTEXTILE WILL ONLY BE UTILIZED IN PLACID SOILS. PLACID SOILS CONSIST OF POORLY DRAINED SOILS COMPOSED OF FINELY TEXTURED PARTICLES AND ARE PRONE TO RUTTING. PLACID SOILS ARE TYPICALLY PRESENT IN LOW-LYING AREAS WITH HYDROLOGIC SOILS GROUP (HSG) OF C OR D, OR AS SPECIFIED FROM AN ENVIRONMENTAL SCIENTIST, SOIL SCIENTIST, OR GEOTECHNICAL DATA.
2. THE CONCERN FOR POTENTIAL REDUCTION OF NATIVE INFILTRATION RATES DUE TO THE GEOTEXTILE MATERIAL WOULD NOT BE A SIGNIFICANT CONCERN IN POORLY DRAINED SOILS WHERE SEGREGATION OF PERVIOUS STONE AND NATIVE MATERIALS IS CRUCIAL FOR LONG TERM OPERATION AND MAINTENANCE.

BASIS OF DESIGN: TENCATE MIRAFI RSI-SERIES WOVEN GEOSYNTHETICS; 365 SOUTH HOLLAND DRIVE, PENDERGRASS, GA; 800-685-9990 OR 706-693-2226; WWW.MIRAFI.COM

1 / C-703 LIMITED USE PERVIOUS ACCESS ROAD - 0% TO 10% SLOPES

N.T.S.

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JUNO BEACH, FL 33408

NEXTera ENERGY

2020 NY GREENFIELD PV DESIGN - RILEY ROAD 1
1902 RILEY RD.
CORTLANDVILLE, NY 13045

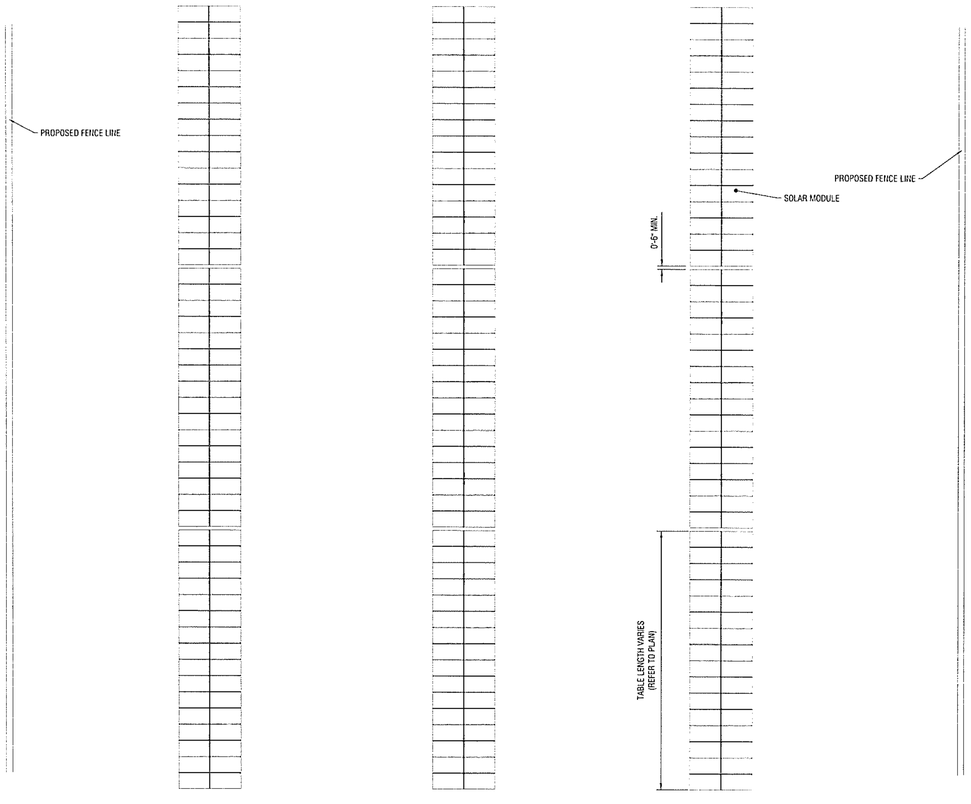
NO:	DATE:	DESCRIPTION:
Revisions		

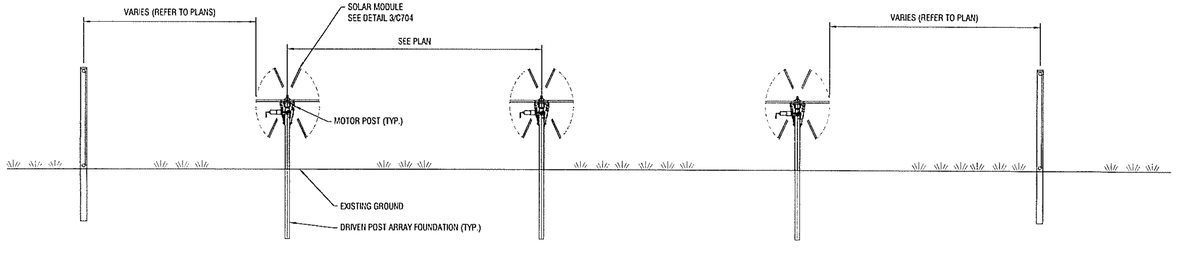
PROJECT NUMBER: 2201200.08
DRAWN BY: BER
REVIEWED BY: DG
ISSUED FOR: REVIEW
DATE: NOVEMBER 2020
DRAWING NAME:

CONSTRUCTION DETAILS

DRAWING NUMBER:

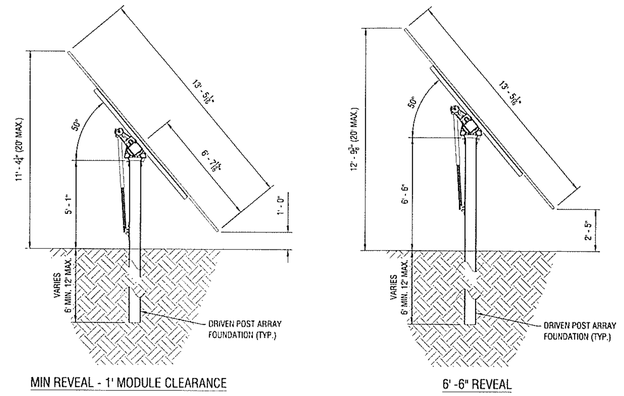
C703





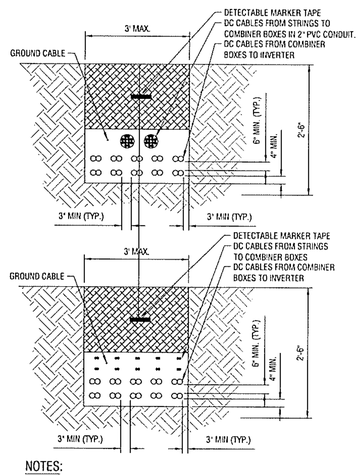
2 C-704 TYPICAL SITE LAYOUT

N.T.S.



3 C-704 SOLAR MODULE AND FRAME PROFILE

N.T.S.



TRENCH NOTES:

1. ADDITIONAL MISCELLANEOUS CABLES FROM FIELD DEVICES SUCH AS TEMPERATURE TRANSMITTERS, METEOROLOGICAL STATIONS, REFERENCE MODULES, SIGNAL GROUND SHALL UTILIZE THE UNDERGROUND TRENCH SYSTEM WHERE IT IS APPLICABLE. CABLES SHALL BE INSTALLED AT LAYERS AS INDICATED.
2. THE TRENCH DETAIL BELOW SHOWS A SAMPLE NUMBER OF DC FEEDER CABLES FROM DC COMBINER BOXES. SPECIFIC CABLE QUANTITIES ARE SHOWN IN RESPECTIVE DETAIL SECTION.
3. TRENCHING MUST COMPLY WITH THE LATEST STANDARDS.
4. CLEAN FILL REQUIREMENTS: TRENCHING BEDDING SHALL BE SAND OR ROCK-FEE FILL SCREENED TO A MAXIMUM 1/4" SIZE AS A CUSHING (FREE OF SHARP EDGE MATERIAL, ROTTING WOOD OR ORGANIC MATTER THAT MIGHT ATTRACT INSECTS). THE CABLES SHALL BE COVERED WITH "CLEAN FILL" SAND OR SOFT EARTH, FREE FROM STONES, ROCKS OR OTHER MATERIAL THAT MAY DAMAGE THE CABLE DURING BACKFILL.
5. THE CABLES CROSS-SECTION AND THE NUMBER SHOWN IS ONLY AN EXAMPLE. ALL CABLES SHALL BE IN ACCORDANCE WITH STANDARDS AND SHALL BE SIZED ACCORDING TO USE AND TYPE OF INSTALLATION.

▨ UNTREATED NATIVE SOIL
▢ CLEAN, DRY BACKFILL CUSHION
▨ EARTH UNDISTURBED

NOTES:

1. CONDUCTORS TO BE 1000V RATED FOR DIRECT BURIAL. MEDIUM VOLTAGE CONDUCTORS FROM PS1 TO BE RATED FOR CLASS 35KV, AND MEDIUM VOLTAGE CONDUCTORS FROM PS2 TO BE RATED FOR CLASS 15KV.
2. CONDUCTORS OF THE SAME CIRCUIT TO BE NEXT TO EACH OTHER; COMBINER CIRCUITS TO BE SPACED 4.5" FROM EACH OTHER UNLESS POSTED OTHERWISE (HORIZONTAL/VERTICAL DIRECTIONS).
3. COMMUNICATIONS TO BE BURIED 1' AWAY FROM ALL POWER CONDUCTORS. USE DIRECT BURY RATED FIBER CABLE.
4. 3" OR 4" PVC SCH80 JUMP-CONDUIT SHALL BE UTILIZED FOR ROW-TO-ROW STRING CIRCUITS WIRING.
5. POWER SUPPLY CABLES TO ARC FAULT CIRCUIT INTERRUPTION CIRCUITS SHALL BE LOCATED AT A MINIMUM 1' FROM DC CIRCUITS.
6. CONTRACTOR SHALL SIZE THE ROW-TO-ROW JUMPER CONDUIT FOR THE CONDUCTORS USED, WITH PVC SCHEDULE 80. A TOTAL OF 60 #10 HOMERUN CABLES CAN FIT INTO A STANDARD 4" PVC CONDUIT. CONTACT THE ENGINEER IF ADDITIONAL GUIDANCE IS REQUIRED.

1 C-704 TYPICAL TRENCH DETAILS

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2020 NY GREENFIELD PV DESIGN - RILEY ROAD 1
1902 RILEY RD.
CORTLANDVILLE, NY 13045

NO.	DATE:	DESCRIPTION:
Revisions		

PROJECT NUMBER: 2201200.08
DRAWN BY: BER
REVIEWED BY: DG
ISSUED FOR: REVIEW
DATE: NOVEMBER 2020
DRAWING NAME:

CONSTRUCTION DETAILS

DRAWING NUMBER:

C704

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2 C101 EXISTING CONDITIONS AND REMOVALS PLAN
SCALE: 1" = 80'

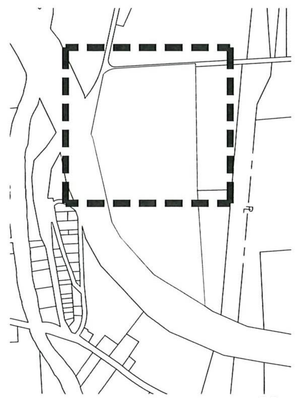
N

DEMOLITION NOTES

1. EXISTING CONDITIONS ARE TAKEN FROM FIELD OBSERVATIONS AND PRIOR CONSTRUCTION DOCUMENTS WHEN AVAILABLE AND ARE NOT GUARANTEED. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO BID. NO ALLOWANCE WILL BE MADE FOR ADDITIONAL COSTS DUE TO CONTRACTOR'S FAILURE TO VERIFY EXISTING CONDITIONS AND DIMENSIONS.
2. PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL TO NOTIFY DIG SAFELY NEW YORK AT 811 TO REQUEST UTILITY STAKEOUT OF ALL PUBLIC UTILITIES.
3. THE HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING ABOVE GROUND AND BELOW GROUND UTILITIES, STRUCTURES, AND APPURTENANCES SHOWN ON THE PLANS ARE APPROXIMATE AND ARE NOT GUARANTEED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT HORIZONTAL AND VERTICAL LOCATION OF ALL UTILITIES, STRUCTURES, AND APPURTENANCES IN THE PATH OF AND ADJACENT TO THE PROPOSED WORK.
4. SITE DRAINAGE, INCLUDING THE PROJECT SITE AND ADJACENT PRIVATE AND PUBLIC ROADWAYS, DRIVES, PARKING AREAS OR PROPERTIES SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD.
5. CONTRACTOR SHALL PROTECT AND SUPPORT ALL EXISTING UTILITIES DESIGNATED TO REMAIN FOR THE DURATION OF THE CONTRACT.
6. THE CONTRACTOR SHALL NOTIFY THE LOCAL GOVERNMENT, LOCAL FIRE DEPARTMENT AND THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION (NYSDEC) AS NECESSARY AND SHALL OBTAIN ANY REQUIRED PERMITS PRIOR TO BEGINNING WORK. COPIES OF ANY REQUIRED PERMITS SHALL BE PROVIDED TO THE OWNER PRIOR TO BEGINNING THE WORK.
7. CONTRACTOR SHALL REMOVE FROM SITE, MATERIALS NOT INDICATED TO BE SALVAGED INCLUDING ALL DEBRIS. ALL REMOVED MATERIALS SHALL BECOME THE PROPERTY OF CONTRACTOR WHO SHALL LEGALLY DISPOSE OF SAME.
8. ALL TREES, SHRUBS AND PLANTS DESIGNATED TO REMAIN AND DISTURBED BY CONSTRUCTION OPERATIONS, SHALL BE REPLACED IN-KIND AS DIRECTED BY THE ARCHITECT/ENGINEER AND/OR OWNER'S DESIGNATED REPRESENTATIVE AT NO ADDITIONAL COST TO THE OWNER.
9. THE CONTRACTOR SHALL MAINTAIN SAFE VEHICULAR AND PEDESTRIAN ACCESS TO THE EXISTING BUILDINGS FOR THE DURATION OF THE CONTRACT.
10. WHEN EXISTING CONSTRUCTION WHICH IS TO REMAIN IS DAMAGED DURING THE COURSE OF CONSTRUCTION AS A RESULT OF CONTRACTOR'S WORK, IT SHALL BE REPAIRED AND/OR REPLACED WITH SIMILAR OR LIKE MATERIALS AS MUCH AS POSSIBLE, AT NO COST TO THE OWNER. ALL REPAIRS AND/OR REPLACEMENTS WILL BE SUBJECT TO OWNER'S APPROVAL.
11. COORDINATE LOCATION OF TEMPORARY CONSTRUCTION FENCE AND TEMPORARY STONE STAGING AREA WITH OWNER

LEGEND

EXISTING	DESCRIPTION
	WETLAND
	ROADWAY CENTERLINES
	CHAIN LINK FENCE
	TREELINE
	PROPERTY LINE
	SETBACK/BUFFER LINE
	EASEMENT LINE
	OVERHEAD ELECTRIC LINE
510	MAJOR CONTOUR
	℄ OF DRAINAGE SWALE
	UTILITY POLE W/O LIGHT



1 C101 KEY PLAN
SCALE: 1" = 750'

N

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2020 NY GREENFIELD PV DESIGN - RILEY ROAD 1
1902 RILEY RD.
CORTLANDVILLE, NY 13045

NO:	DATE:	DESCRIPTION:
Revisions		

PROJECT NUMBER: 2201200.08
DRAWN BY: JMA
REVIEWED BY: DG
ISSUED FOR: REVIEW
DATE: NOVEMBER 2020
DRAWING NAME:

EXISTING CONDITIONS AND REMOVALS PLAN (SHEET 1 OF 2)

DRAWING NUMBER:

C101

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MATCH TO SHEET C-101

2 C102 EXISTING CONDITIONS AND REMOVALS PLAN
SCALE: 1" = 80'

N

DEMOLITION NOTES

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LEGEND

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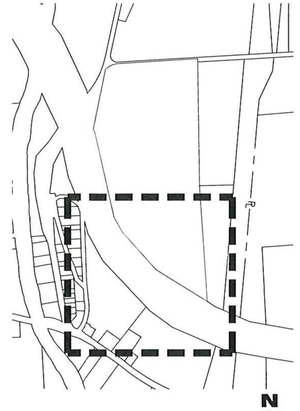
	ROADWAY CENTERLINES
	CHAIN LINK FENCE
	TREELINE
	PROPERTY LINE
	SETBACK/BUFFER LINE
	EASEMENT LINE
	OVERHEAD ELECTRIC LINE
-50-	MAJOR CONTOUR
	℄ OF DRAINAGE SWALE
	UTILITY POLE W/O LIGHT



1 C102 KEY PLAN
SCALE: 1" = 750'

N

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2020 NY GREENFIELD PV DESIGN - RILEY ROAD 1
1902 RILEY RD.
CORTLANDVILLE, NY 13045

NO:	DATE:	DESCRIPTION:
Revisions		

PROJECT NUMBER: 2201200.08
DRAWN BY: JMA
REVIEWED BY: DG
ISSUED FOR: REVIEW
DATE: NOVEMBER 2020
DRAWING NAME:

EXISTING CONDITIONS AND REMOVALS PLAN (SHEET 2 OF 2)

DRAWING NUMBER:

C102

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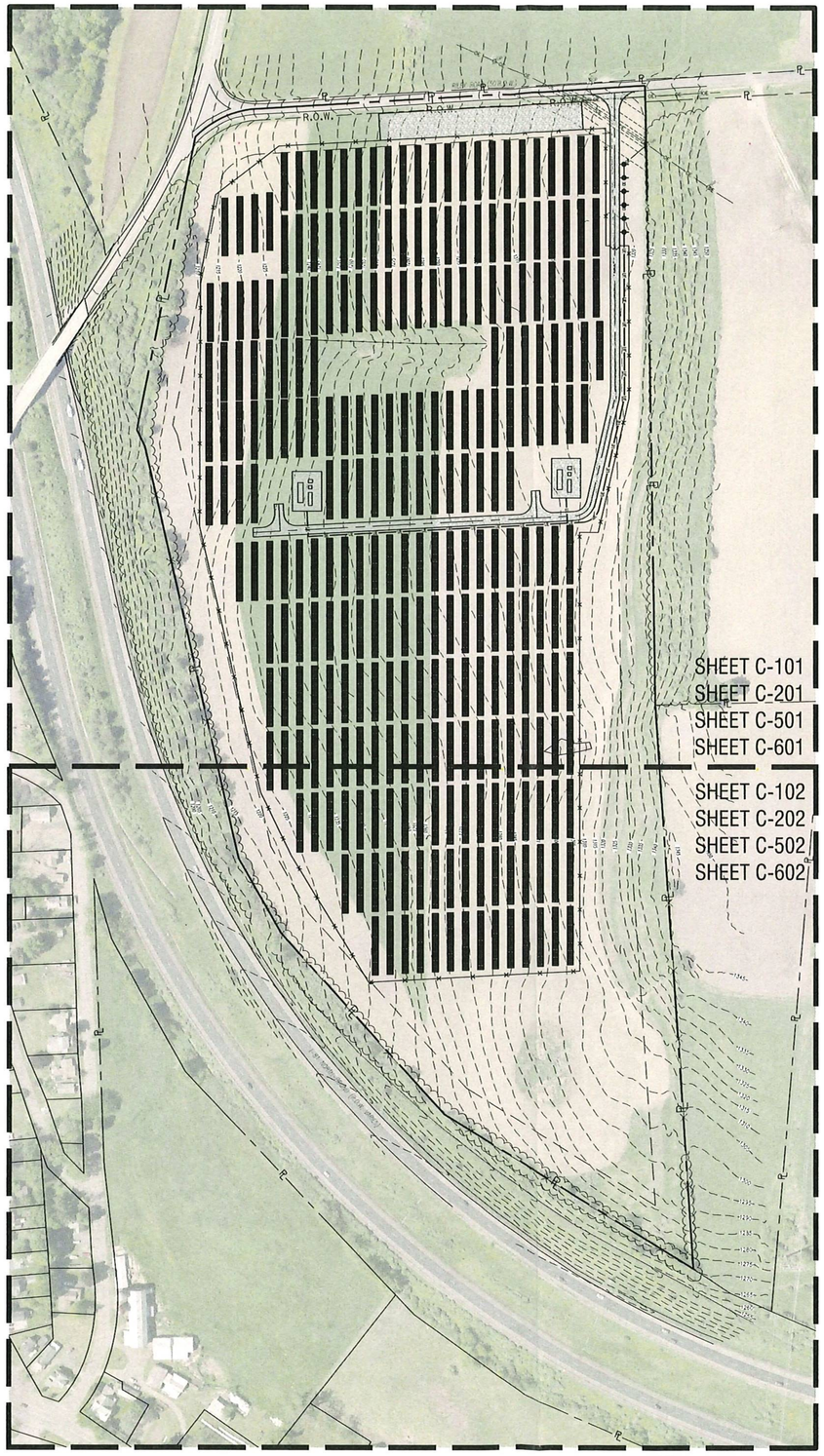

1 C200 OVERALL SITE PLAN
SCALE: 1" = 150'

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SITE NOTES

1. WELL COMPACTED SUBGRADE SHALL BE UTILIZED UNDERNEATH CONSTRUCTION OF PAVEMENT AND CONCRETE BASES.
2. ALL STAKEOUT FOR THE PROPOSED SITE IMPROVEMENTS SHALL BE COMPLETED BY A NEW YORK STATE LICENSED LAND SURVEYOR.
3. IF ANY DISCREPANCIES ARE NOTED BETWEEN THESE CONSTRUCTION DOCUMENTS AND INFORMATION PROVIDED OR AN ERROR IS SUSPECT, IT SHALL BE IMMEDIATELY REPORTED TO THE CONSTRUCTION MANAGER AND LABELLA ASSOCIATES PROJECT MANAGER IN WRITING.
4. ANY PROOF-ROOLING OF EXPOSED SUBBASE BY A MINIMUM 10 TON SMOOTH DRUM ROLLER SHALL BE DONE UNDER THE GUIDANCE OF, AND OBSERVED BY, QUALIFIED ENGINEERING PERSONNEL PRIOR TO PLACEMENT OF SUBBASE MATERIAL. THE ROLLER SHOULD BE OPERATED IN THE STATIC MODE AND COMPLETE AT LEAST TWO (2) PASSES OVER THE EXPOSED SUBGRADES.

GENERAL UTILITY NOTES:

1. THE CONTRACTOR SHALL CONTACT DIG SAFE TO REQUEST A STAKEOUT PRIOR TO SOIL DISTURBANCE TO IDENTIFY LOCATION OF ALL EXISTING UTILITIES.
2. THE CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES UNLESS OTHERWISE NOTED ON THE DRAWINGS.

LEGEND

EXISTING	PROPOSED	DESCRIPTION
		WETLAND
		ROADWAY CENTERLINES
		PERVIOUS GRAVEL PAVEMENT
		CHAIN LINK FENCE
		TREELINE
		PROPERTY LINE
		SETBACK LINE
		EASEMENT LINE
		OVERHEAD ELECTRIC LINE
		UNDERGROUND ELECTRIC LINE
		UTILITY POLE W/O LIGHT

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STATE OF NEW YORK
NEXT ERA ENERGY
LICENSED
PROFESSIONAL ENGINEER
034674

It is a violation of New York Education Law Article 145 Sec.7209, for any person, unless acting under the direction of a licensed architect, professional engineer, or land surveyor, to alter an item in any way. If an item bearing the seal of an architect, engineer, or land surveyor is altered; the altering architect, engineer, or land surveyor shall affix to the item their seal and notation "altered by" followed by their signature and date of such alteration, and a specific description of the alteration.

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700 UNIVERSE BLVD.
JUNO BEACH, FL 33408

NEXTera ENERGY

2020 NY GREENFIELD PV DESIGN - RILEY ROAD 1
1902 RILEY RD.
CORTLANDVILLE, NY 13045

NO.	DATE:	DESCRIPTION:
Revisions		

PROJECT NUMBER: 2201200.08
DRAWN BY: JMA
REVIEWED BY: DG
ISSUED FOR: REVIEW
DATE: NOVEMBER 2020
DRAWING NAME:

OVERALL SITE PLAN

DRAWING NUMBER:

C200

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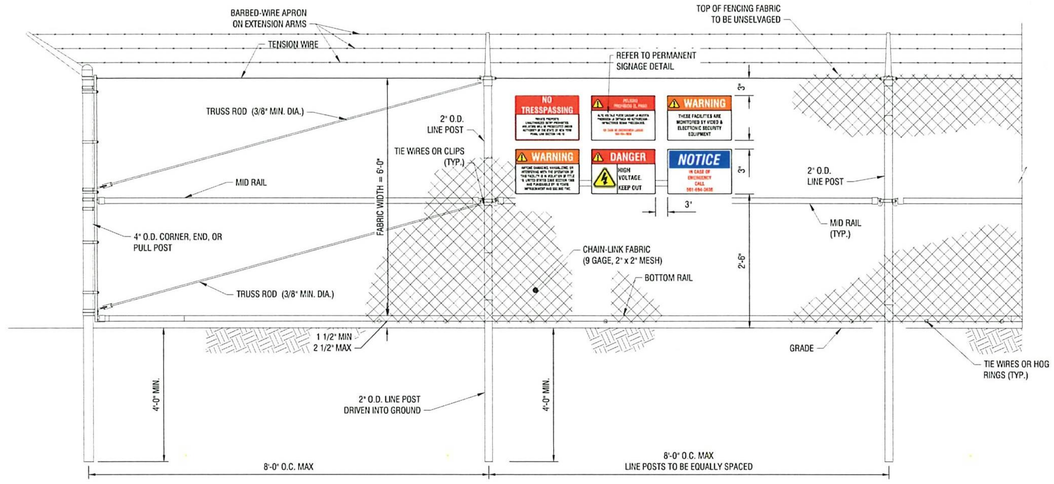


NOTES:

1. SIGNS SHALL BE INSTALLED IN GROUPS EVERY 300',

4 C-701 — 6' HIGH BARBED WIRE HIGH SECURITY FENCE (IN WETLANDS)

N.T.S.

WARNING

ANYONE DAMAGING, VANDALIZING, OR INTERFERING WITH THE OPERATION OF THIS FACILITY IS IN VIOLATION OF TITLE 18. UNITED STATES CODE SECTION 1366 AND PUNISHABLE BY 10 YEARS IMPRISONMENT AND $50,000 FINE.

DANGER

HIGH VOLTAGE.

KEEP OUT

WARNING

THESE FACILITIES ARE MONITORED BY VIDEO & ELECTRONIC SECURITY EQUIPMENT

NOTICE

IN CASE OF EMERGENCY CALL 561-694-3636

RILEY ROAD SOLAR ARRAY

1902 RILEY ROAD, CORTLANDVILLE, NY 13045

NO TRESSPASSING

PRIVATE PROPERTY. UNAUTHORIZED ENTRY PROHIBITED. VIOLATORS WILL BE PROSECUTED UNDER AUTHORITY OF THE STATE OF NEW YORK PENAL LAW SECTION 140.10

DANGER

LITHIUM-ION BATTERIES. FIRE AND EXPLOSION RISK.

DO NOT OPEN DOORS WITH ROCC AUTHORIZATION 561-694-3636

DANGER

ALARM INDICATES FIRE SYSTEM IS ACTIVE. LITHIUM-ION BATTERIES. FIRE AND EXPLOSION RISK.

DO NOT OPEN DOORS WITH ROCC AUTHORIZATION 561-694-3636

PELIGRO
PROHIBIDO EL PASO

ALTO VOLTAJE PUEDE CAUSAR LA MUERTA PHOHIBIDA LA ENTRADA NO AUTHORZADA - INFRACTORES SERAN PROCEDADOS.

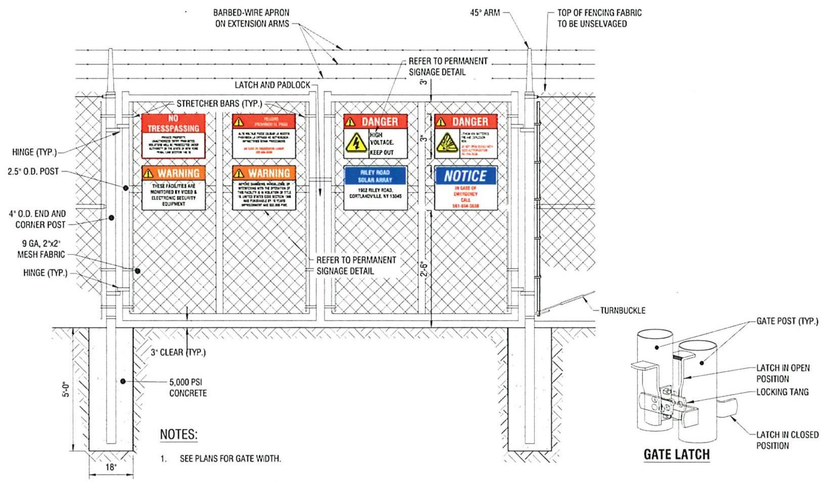
EN CASE DE EMERGENCIA LAMAR 562-694-3636

NOTES:

1. ALL SIGNS TO BE 18" x 24" IN SIZE
2. SIGNS SHALL BE UV RESISTANT AND IN COLOR. SIGN MATERIAL SHALL BE HDPE OR LIGHT GAGE GALVANIZED STEEL.
3. SIGNS TO BE ATTACHED TO FENCING WITH PERMANENT FASTENERS.

3 C-701 — PERMANENT SIGNAGE

N.T.S.



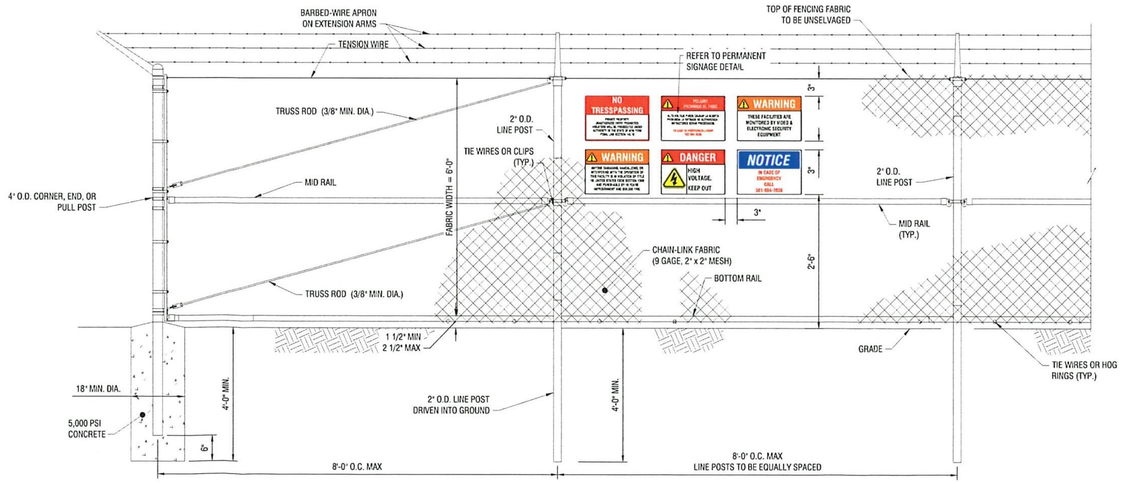
NOTES:

1. SEE PLANS FOR GATE WIDTH.

2 C-701 — 6' TALL WIDE DOUBLE SWING GATE

N.T.S.

GATE LATCH



NOTES:

1. SIGNS SHALL BE INSTALLED IN GROUPS EVERY 300',

1 C-701 — 6' HIGH BARBED WIRE HIGH SECURITY FENCE

N.T.S.

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2020 NY GREENFIELD PV DESIGN - RILEY ROAD 1
1902 RILEY RD.
CORTLANDVILLE, NY 13045

NO:	DATE:	DESCRIPTION:
Revisions		

PROJECT NUMBER: 2201200.08

DRAWN BY: BER

REVIEWED BY: DG

ISSUED FOR: REVIEW

DATE: NOVEMBER 2020

DRAWING NAME:

CONSTRUCTION DETAILS

DRAWING NUMBER:

C701

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DG New York CS, LLC

Attachment 8 – Decommissioning Plan

A NextEra Energy Resources, LLC company

700 Universe Boulevard, Juno Beach, FL 33408

Riley Road Solar Project
DG New York CS IV, LLC
Project Decommissioning Plan

Introduction

NextEra Energy Resources ("NextEra") proposes to build a ground-mounted photovoltaic (PV) Solar Facility ("Solar Facility") in the Town of Cortlandville in Cortland County. The Solar Facility will have a nameplate capacity of approximately 5 megawatts (MW) alternating current (AC). The Project will be installed on approximately 36 acres of an approximately 52 acre parcel located at Riley Road (Tax Parcel ID: 87.00-03-08.112) by NextEra's subsidiary company, DG New York CS IV, LLC ("DG").

Battery storage is proposed for the Project, and the Solar Facility will feature two battery energy storage systems with a capacity of 1.875 MW-AC each.

The Plan provides an overview of activities that will occur during the decommissioning phase of the Solar Facility, including: activities related to the restoration of land, the management of materials and waste, projected costs, and a decommissioning fund agreement overview. The Solar Facility will have a maturity date of 30 years; however, it is expected that the Solar Facility may have an estimated useful lifetime of 35 years or more. This Plan assumes that the Solar Facility will be dismantled and the Facility Site restored to a state similar to its pre-construction condition. The Plan also covers the case of the abandonment of a Solar Facility, for any reason, prior to the 30-year maturity date. It is designed to provide a level of financial protection for the Town of Cortlandville.

Decommissioning of the Solar Facility will include the disconnection of the Solar Facility from the electrical grid and the removal of all Solar Facility components including:

- Photovoltaic (PV) modules, panel racking and supports;
- Inverter units, battery storage, transformers, and other electrical equipment;
- Access roads*, wiring cables, perimeter fence; and,
- Concrete foundations.

*Note that access roads may be left in place at the discretion of the local landowner.

This Decommissioning Plan is based on current best management practices and procedures and has been prepared in compliance with the most recent guidance from New York State Department Of Agriculture And Markets (NYSDAM) "Guidelines for Solar Energy Projects - Construction Mitigation for Agricultural Lands" [Revision 10/18/2019]. This Decommissioning Plan may be subject to revision based on new standards and emergent best management practices at the time of decommissioning. Permits will be obtained as required and notification will be given to stakeholders prior to decommissioning.

Decommissioning of the Solar Facility

The Project may be decommissioned under the following circumstances:

[1] DG or any entity that may own or operate the facility in the future ("the future owner-operator") decides to retire the Solar Facility; or

[2] The Solar Facility becomes technologically obsolete or ceases to perform its original intended function for more than six consecutive months. Town of Cortandville Town Code 178-123.3 (K)(1).

DG or the future owner-operator will provide a financial guarantee to the Town of Cortlandville prior to undertaking construction in the form of a bond to guarantee that monies are available to perform the Solar Facility decommissioning. Although DG intends to perform the decommissioning, unforeseen circumstances such as the Project being sold to another entity or DG going out of business are possible. The bond will be renewed annually and will remain available to any party performing the decommissioning, such as a municipality or a landowner.

At the time of decommissioning, the installed components will be removed, reused, disposed of, and recycled, where possible. The Facility Site will be restored to a state similar to its pre-construction condition, as further described in the Site Restoration sub-section below. Removal of equipment will be done in accordance with any applicable regulations and manufacturer recommendations. All applicable permits will be acquired, and compliance with the State Environmental Quality Review (SEQR) requirements will be achieved.

In the unlikely scenario that DG or the future owner-operator cannot execute the decommissioning, the Town of Cortlandville may commence the decommissioning, through the bonds established to cover the expenses.

Equipment Dismantling and Removal

During the decommissioning phase, project components (Exhibit 1) will be removed. Generally, the decommissioning of the Solar Facility proceeds in the reverse order of the installation.

- The Solar Facility shall be disconnected from the utility power grid.
- PV modules shall be disconnected, collected, and disposed at an approved solar module recycler or reused / resold on the market. Although the PV modules will not be cutting edge technology at the time of decommissioning, they are estimated to still produce 80% of the original electricity output at year 25 and add value for many years.
- All aboveground electrical interconnection and distribution cables shall be removed and disposed off-site at an approved facility.

- In accordance with NYSDAM guidelines, all underground direct buried electrical conduits and conductors with less than 48-inches of cover shall be removed by means causing the least amount of disturbance possible.
- Underground electric conduits and direct buried conductors with 48-inches or more of soil cover shall be abandoned in place. In accordance with NYSDAM guidelines, applicable conduit risers shall be removed, and abandoned conduit must be sealed or capped to avoid the potential to direct subsurface drainage onto neighboring land uses.
- Underground electric conduits and direct buried conductors shall be abandoned in place. These will be sealed or capped in accordance with best practices at the time of decommissioning.
- Galvanized steel PV module support and racking system support posts shall be removed and disposed off-site at an approved facility.
- Concrete foundations shall be removed and disposed off-site at an approved facility.
- In accordance with NYSDAM guidelines, access roads in agricultural areas shall be removed, unless otherwise specified by the landowner. If access is to be removed, access areas should be regraded with topsoil from recorded excess native topsoil disposal areas. If suitable topsoil from these areas is unavailable, imported topsoil may be used as long as it is free of invasive species and consistent with top soil quality on the affected site.
- Electrical and electronic devices, including transformers, inverters, battery storage, switchgear, and support structures shall be removed and disposed off-site at an approved facility.
- Concrete foundations shall be removed and disposed off-site by an approved facility.
- Fencing shall be removed and will be disposed off-site at an approved facility.

Environmental Effects

Decommissioning activities, particularly the removal of project components could result in environmental effects like those of the construction phase. As with any construction activity, there is the potential for ground disturbance, erosion/sedimentation, soil compaction, spills, and related impacts to adjacent watercourses or significant natural features. Construction best management practices and mitigation measures, similar to those employed during the construction phase of the Solar Facility, will be implemented. These will remain in place until the site is stabilized and the ground cover has been reestablished.

Road traffic will temporarily increase due to the movement of decommissioning crews and equipment. There may be an increase in particulate matter (dust) in adjacent areas during the decommissioning phase. Decommissioning activities may lead to temporary elevated noise levels from heavy machinery and an increase in vehicle trips to the project location. Work will be undertaken during daylight hours and will conform to applicable restrictions. Recycling of structural components will be maximized to the extent possible to reduce solid waste disposal.

Site Restoration

The Project Site is located in Cortland County Agricultural District 1. It contains active agricultural land, and hay and corn are grown at the site. Following decommissioning and removal of project components, the Facility Site will be restored to a state similar to its pre-construction condition in accordance with Town Code Section 178-123.3 (K)(1). As such, site restoration activities will focus on restoring this land to active agricultural use. The Project Site's pre-construction condition has been documented in the photos at Exhibit 2.

If at the time of decommissioning, the site or portions of the site are intended to be restored for agricultural production, DG or the future owner-operator will coordinate further with the landowner, the Soil and Water Conservation District, and the Department of Agriculture and Markets. DG or the future owner-operator also will follow the environmental monitoring and restoration requirements of the NYSDAM guidelines (see Exhibit 4).

Finally, if access roads in agricultural areas are removed in accordance with landowner wishes, topsoil shall be returned from recorded project excess native topsoil disposal areas, if present, or topsoil shall be imported which is free of invasive species and consistent with the quality of topsoil on the affected site.

Managing Materials and Waste

Through the decommissioning phase, a variety of excess materials and wastes will be generated (Exhibit 1). DG or the future owner-operator will establish policies and procedures to maximize recycling and reuse and will work with manufacturers, local subcontractors, and waste firms to segregate material to be disposed of, recycled, or reused.

Most of the materials used in a Solar Facility are reusable or recyclable and some equipment may have manufacturer take-back and recycling requirements. Batteries and battery containers will be transported off-site and recycled at a certified facility that specializes in commercial battery disposal. Any remaining materials will be removed and disposed of off-site at an appropriate facility.

DG or the future-owner operator will be responsible for the logistics of collecting and recycling the PV modules in order to minimize the potential for modules to be discarded in the municipal waste stream. Currently, some manufacturers and new companies are looking for ways to recycle and/or reuse solar modules when they have reached the end of their lifespan. It is anticipated there will be more recycling options available for solar modules in 30 years when this Solar Facility reaches the end of its lifespan. DG or the future owner-operator will determine the best way of disposing of the solar modules using best management practices at the time of decommissioning. DG or the future owner-operator will coordinate with the municipality if the disposal of any project component at the municipal waste facility is necessary.

Decommissioning Notification

Decommissioning activities generally require the notification of stakeholders given the nature of the work at the Facility Site.

Notification activities will be initiated six months prior to decommissioning. At that time, DG or the future owner-operator will update their list of stakeholders and notify appropriate jurisdictions and overseeing agencies of decommissioning activities. Federal, county, and local authorities, including the utility company, will be notified as needed to discuss the potential approvals required to engage in decommissioning activities.

The Town of Cortlandville will be notified prior to commencement of any decommissioning activities. Additionally, pursuant to Town Code Section 178-123.3(K)(1), the Town shall provide the solar energy system owner 30 days' prior written notice of a request for decommissioning.

In accordance with NYSDAM guidelines, DG or the future owner-operator will also notify NYSDAM prior to decommissioning.

Approvals

Well-planned and well-managed renewable energy facilities are not expected to pose environmental risks at the time of decommissioning. Decommissioning of a Solar Facility will follow the regulatory standards of the day. DG or the future owner-operator will ensure that any required permits are obtained prior to decommissioning.

This Decommissioning Report will be updated as necessary in the future but not less than every five years, to ensure that changes in technology and site restoration methods are taken into consideration.

Decommissioning During Construction or Abandonment Before Maturity

In case of abandonment of the Solar Facility during construction or before its 30 year maturity, the same decommissioning procedures as for decommissioning after ceasing operation will be undertaken and the same decommissioning and restoration program will be honored, in as far as construction proceeded before abandonment. The Solar Facility will be dismantled, materials will be recycled/disposed, the soil that was removed will be graded, and the site will be restored to a state similar to its preconstruction condition.

Of note, if the ground-mounted large-scale solar energy system is not decommissioned after being considered abandoned, the Town may remove the system and restore the property and impose a lien on the property to recover these costs to the Town. Town Code Section 178-123.3 (K)(2).

Costs of Decommissioning & Decommissioning Bond

The current cost to decommission a 5 MW-AC Solar Facility has been estimated on behalf of DG by their engineering consultants and construction contractors, using guidance from NYSERDA, at $252,000. It is important to acknowledge that decommissioning of solar arrays has not been undertaken to any significant extent in New York State (or other States), and therefore, actual data and cost estimating models are not available. Moreover, there is great uncertainty in many factors that will come into play at the time of future decommissioning, such as the regulatory climate, changes in technology, repowering opportunities etc. The cost estimate, as a result, is based upon the best available information and engineering and demolition experience with other types of construction projects. In addition, the salvage values of valuable recyclable materials (aluminum, steel, copper, etc.) have not been factored into the decommissioning cost estimate, and the scrap value will be determined on current market rates at the time of salvage.

At the start of construction, DG will post a bond in the amount of approximately $252,000. After every year of operation, DG or the future owner-operator will increase the bond amount 2% of the previous balance to keep up with inflation and expected decommissioning costs – for a total amount of approximately $448,000 at the project's 30-year maturity (see Exhibit 3).

Exhibit 1

Schedule of Materials

Material/Waste	Means of Managing Excess Materials and Waste
PV Modules	If there is no possibility for reuse, the panels will either be returned to the manufacturer for appropriate disposal or will be transported to a recycling facility where the glass, metal, and semiconductor materials will be separated and recycled.
Metal Racking	These materials will be disposed off-site at an approved facility.
Transformer components	The small amount of oil from the transformers will be removed on-site to reduce the potential for spills and will be transported to an approved facility for disposal. The substation transformer and step-up transformers in the inverter units will be transported off-site to be sent back to the manufacturer, recycled, reused, or safely disposed off-site in accordance with current standards and best practices.
Battery energy storage system, inverters, fans, switchgear, and fixtures	The batteries will be transported off-site and recycled at a certified facility that specializes in commercial battery disposal. The metal components of the battery storage container, inverters, fans, and fixtures will be disposed of or recycled, where possible. Remaining components will be disposed of in accordance with the standards of the day.
Gravel (or other granular)	It is possible that the municipality may accept uncontaminated material without processing for use on local roads; however, for the purpose of this report it is assumed that the material will be removed from the project location by truck to a location where the aggregate can be processed for salvage. It will then be reused as fill for construction. It is not expected that any such material will be contaminated.
Geotextile Fabric	It is assumed that during excavation of the aggregate, a large portion of the geotextile will be "picked up" and sorted out at the aggregate reprocessing site. Geotextile fabric that is remaining or large pieces that can be readily removed from the excavated aggregate will be disposed of off-site at an approved disposal facility.
Concrete inverter/BESS/transformer foundations	Concrete foundations will be broken down and transported by certified and licensed contractor to a recycling or approved disposal facility.
Cables and Wiring	The aboveground electrical line that connects the substation to the point of common coupling will be disconnected and disposed of at an approved facility. Support poles, if made of untreated wood, will be chipped for reuse. Associated electronic equipment (isolation switches, fuses, metering) will be transported off-site to be sent back to the manufacturer, recycled, reused, or safely disposed off-site in accordance with current standards and best practices.

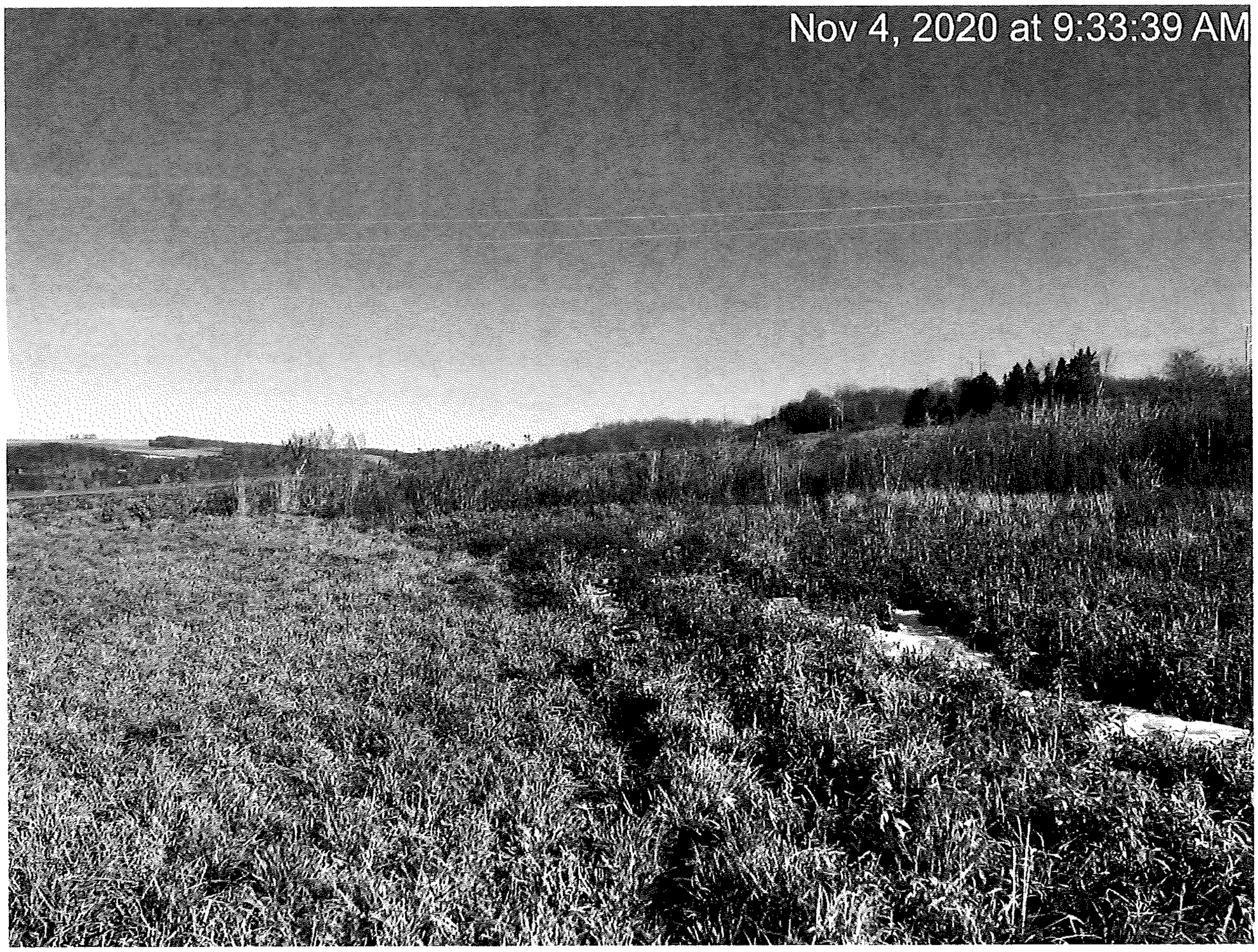
	Underground conduits, conductors, and other facilities originally installed at depth will remain in place to avoid ground disturbance and potential soil erosion.
Fencing	Fencing will be removed and recycled at a metal recycling facility.
Utility Poles	Customer-owned utility poles will be dismantled and transported to a licensed treated wood recycling facility to be assessed for reuse for operational use or for secondary use in construction projects.
Debris	Any remaining debris on the site will be separated into recyclables/residual wastes and will be transported from the site and managed as appropriate.

Exhibit 2

Photo Documentation of Pre-Construction Conditions

Photos of Pre-Existing Site Conditions—Riley Road Solar

Riley Road (Tax Parcel ID: 87.00-03-08.112)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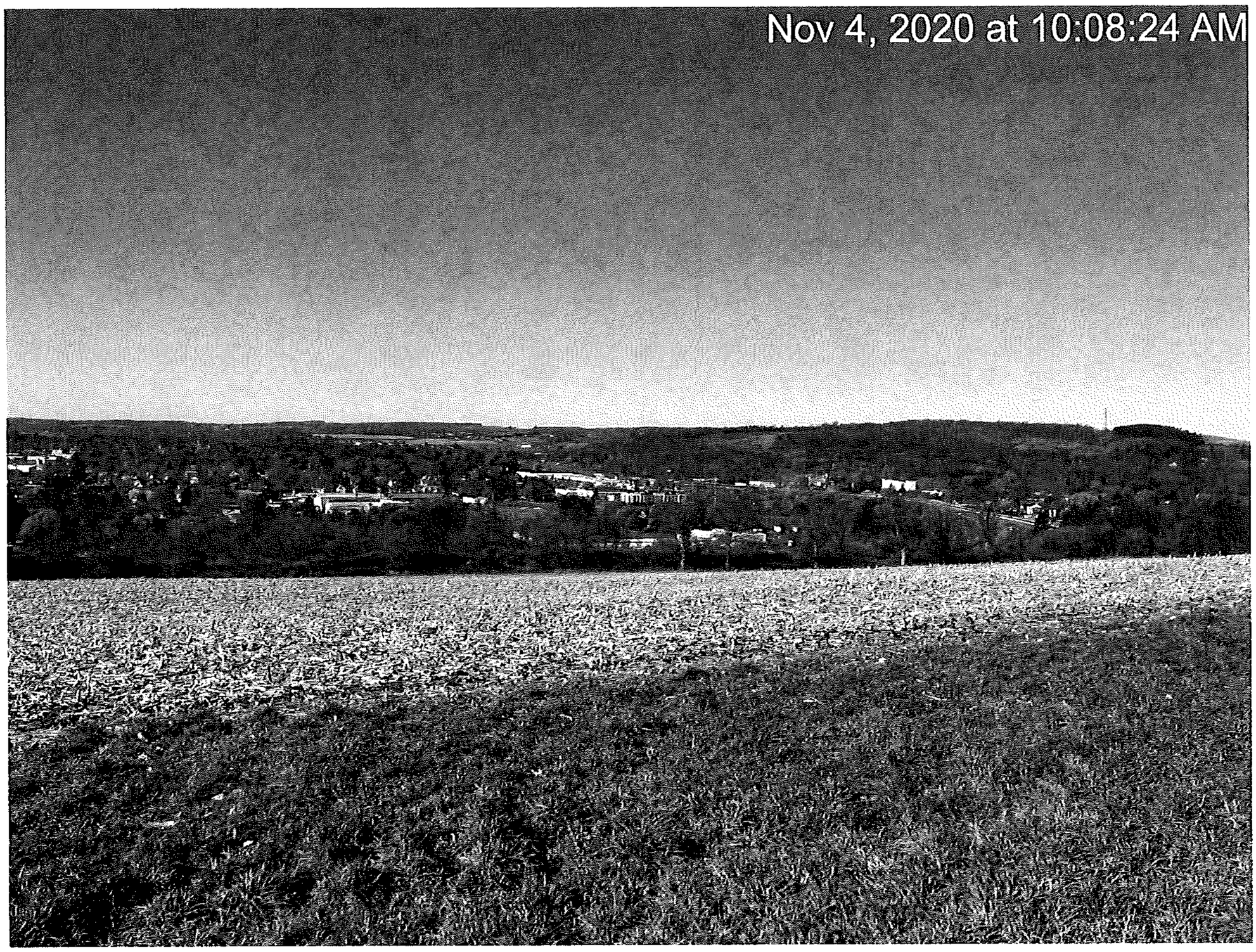
Nov 4, 2020 at 10:08:24 AM

Exhibit 3 - Bond Value

Decommissioning Bond Value with Escalation Rate of 2%	
Year	Amount
1	$252,000
2	$257,040
3	$262,181
4	$267,424
5	$272,773
6	$278,228
7	$283,793
8	$289,469
9	$295,258
10	$301,163
11	$307,187
12	$313,330
13	$319,597
14	$325,989
15	$332,509
16	$339,159
17	$345,942
18	$352,861
19	$359,918
20	$367,116
21	$374,459
22	$381,948
23	$389,587
24	$397,379
25	$405,326
26	$413,433
27	$421,701
28	$430,135
29	$438,738
30	$447,513

Exhibit 4 – NYSDAM Guidelines

NEW YORK STATE DEPARTMENT OF AGRICULTURE AND MARKETS

Guidelines for
Solar Energy Projects - Construction Mitigation for Agricultural Lands
(Revision 10/18/2019)

The following are guidelines for mitigating construction impacts on agricultural land during the following stages of a solar energy project: Construction, Post-Construction Restoration, Monitoring and Remediation, and Decommissioning. These guidelines apply to project areas subject to ground disturbance[1] within agricultural lands including:

- Lands where agriculture use will continue or resume following the completion of construction (typically those lands outside of the developed project's security fence);
- Lands where the proposed solar development will be returning to agricultural use upon decommissioning, (typically those lands inside of the developed project's security fence);
- Applicable Area under review pursuant to Public Service Law Article 10 Siting of Major Electric Facilities.

The Project Company will incorporate these Guidelines into the development plans and applications for permitting and approval for solar projects that impact agricultural lands. If the Environmental Monitor, hereafter referred to as EM, determines that there is any conflict between these Guidelines and the requirements for project construction that arise out of the project permitting process, the Project Company and its EM, will notify the New York State Department of Agriculture and Markets (NYSDAM), Division of Land and Water Resources, and seek a reasonable alternative.

Environmental Monitor (EM)

The Project Company (or its contractor) shall hire or designate an EM to oversee the construction, restoration and follow-up monitoring in agricultural areas. The EM shall be an individual with a confident understanding of normal agriculture practices[2] (such as cultivation, crop rotation, nutrient management, drainage (subsurface and/or surface), chemical application, agricultural equipment operation, fencing, soils, plant identification, etc.) and able to identify how the project may affect the site and the applicable agricultural practices. The EM should also have experience with or understanding of the use of a soil penetrometer for compaction testing and record keeping. The EM may serve dual inspection roles associated with other Project permits and/or construction duties, if the agricultural workload allows. The EM should be available to provide site-specific agricultural information as necessary for project development through field review and direct contact with both the affected farm operators and NYSDAM. The EM should maintain regular contact with appropriate onsite project construction supervision and inspectors throughout the construction phase. The EM should maintain regular contact with the affected farm operator(s) concerning agricultural land impacted, management matters pertinent to the agricultural operations and the site-specific implementation of agricultural resource mitigation measures. The EM will serve as the agricultural point of contact.

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[1]Ground Disturbance is defined as an activity that contributes to measurable soil compaction, alters the soil profile or removes vegetative cover. Construction activities that utilize low ground pressure vehicles that do not result in a visible rut that alters soil compaction, is not considered a Ground Disturbance. Soil compaction should be tested using an appropriate soil penetrometer or other soil compaction measuring device. The soil compaction test results within the affected area will be compared with those of the adjacent unaffected portion of the agricultural area.

[2] An EM is not expected to have knowledge regarding all of the listed agricultural practices, but rather a general understanding such that the EM is able to perform the EM function.

1. For projects involving less than 50 acres of agricultural land within the limits of disturbance (LOD),[3] the EM shall be available for consultation and/or on-site whenever construction or restoration work that causes Ground Disturbance is occurring on agricultural land.

2. For projects involving 50 acres or more of agricultural land within the (LOD) (including projects involving the same parent company whether phased or contiguous projects), the EM shall be on site whenever construction or restoration work requiring or involving Ground Disturbance is occurring on agricultural land and shall notify NYSDAM of Project activity. The purpose of the agency coordination would be to assure that the mitigation measures of these guidelines are being met to the fullest extent practicable. The Project Company and the NYSDAM will agree to schedule inspections in a manner that avoids delay in the work. NYSDAM requires the opportunity to review and will approve the proposed EM based on qualifications or capacities.

Construction Requirements

- Before any topsoil is stripped, representative soil samples should be obtained from the areas to be disturbed. The soil sampling should be consistent with Cornell University's soil testing guidelines, and samples should be submitted to a laboratory for testing PH, percent organic material, cation exchange capacity, Phosphorus/Phosphate (P), and Potassium/Potash (K). The results are to establish a benchmark that the soil's PH, Nitrogen (N), Phosphorus/Phosphate (P), and Potassium/Potash (K) are to be measured against upon restoration. If soil sampling is not performed, fertilizer and lime application recommendations for disturbed areas can be found at https://www.agriculture.ny.gov/ap/agservices/Fertilizer_Lime_and_Seeding_Recommendations.pdf .

- Stripped topsoil should be stockpiled from work areas (e.g. parking areas, electric conductor trenches, along access roads, equipment pads) and kept separate from other excavated material (rock and/or sub-soil) until the completion of the facility for final restoration. For proper topsoil segregation, at least 25 feet of additional temporary workspace (ATWS) may be needed along "open-cut" underground utility trenches. All topsoil will be stockpiled as close as is reasonably practical to the area where stripped/removed and shall be used for restoration on that particular area. Any topsoil removed from permanently converted agricultural areas (e.g. permanent roads, etc.) should be temporarily stockpiled and eventually spread evenly in adjacent agricultural areas within the project Limits of Disturbance (LOD) ; however not to significantly alter the hydrology of the area. Clearly designate topsoil stockpile areas and topsoil disposal areas in the field and on construction drawings; changes or additions to the designated stockpile areas may be needed based on field conditions in consultation with the EM. Sufficient LOD (as designated on the site plan or by the EM) area should be allotted to allow adequate access to the stockpile for topsoil replacement during restoration.

    - Topsoil stockpiles on agricultural areas left in place prior to October 31st should he seeded with Aroostook Winter Rye or equivalent at an application rate of three bushels (168 lbs.) per acre and mulched with straw mulch at rate of two to three bales per 1000 Sq. Ft.

    - Topsoil stockpiles left in place between October 31st and May 31st should be mulched with straw at a rate of two to three bales per 1000 Sq. Ft. to prevent soil loss.

- The surface of access roads located outside of the generation facility's security fence and constructed through agricultural fields shall be level with the adjacent field surface. If a level road design is not

[3] The Limits of Disturbance (LOD) includes all project related ground disturbances and all areas within the project's security fencing.

feasible, all access roads should be constructed to allow a farm crossing (for specific equipment and livestock) and to restore/ maintain original surface drainage patterns.

- Install culverts and/or waterbars to maintain or improve site specific natural drainage patterns.

- Do not allow vehicles or equipment outside the planned LOD without the EM seeking prior approval from the landowner (and/or agricultural producer), and associated permit amendments as necessary. Limit all vehicle and equipment traffic, parking, and material storage to the access road and/or designated work areas, such as laydown areas, with exception the use of low ground pressure equipment.[4] Where repeated temporary access is necessary across portions of agricultural areas outside of the security fence, preparation for such access should consist of either stripping / stockpiling all topsoil linearly along the access road, or the use of timber matting.

- Proposed permanent access should be established as soon as possible by removing topsoil according to the depth of topsoil as directed by the EM. Any extra topsoil removed from permanently converted areas (e.g. permanent roads, equipment pads, etc.) should be temporarily stockpiled and eventually spread evenly in adjacent agricultural areas within the project Limits of Disturbance (LOD); however not to significantly alter the hydrology of the area.

- When open-cut trenching is proposed, topsoil stripping is required from the work area adjacent to the trench (including segregated stockpile areas and equipment access). Trencher or road saw like equipment are not allowed for trench excavation in agricultural areas, as the equipment does not segregate topsoil from subsoil. Horizontal Directional Drilling (HDD) or equivalent installation that does not disrupt the soil profile, may limit agricultural ground disturbances. Any HDD drilling fluid inadvertently discharged must be removed from agricultural areas. Narrow open trenches less than 25 feet long involving a single directly buried conductor or conduit (as required) to connect short rows within the array, are exempt from topsoil segregation.

- Electric collection, communication and transmission lines installed above ground can create long term interference with mechanized farming on agricultural land. Thus, interconnect conductors outside of the security fence must be buried in agricultural fields wherever practicable. Where overhead utility lines are required, (including Point(s) of Interconnection) installation must be located outside field boundaries or along permanent access road(s) wherever possible. When overhead utilities must cross farmland, minimize agricultural impacts by using taller structures that provide longer spanning distances and locate poles on field edges to the greatest extent practicable.

- All buried utilities located **within** the generation facility's security fence must have a minimum depth of 18-inches of cover if buried in a conduit and a minimum depth of twenty-four inches of cover if directly buried (e.g. not routed in conduit).[5]

- The following requirements apply to all buried utilities located **outside** of the generation facility security fence:

    - In cropland, hayland, and improved pasture buried electric conductors must have a minimum depth of 48-inches of cover. In areas where the depth of soil over bedrock is less than 48-inches, the

[4] low ground pressure vehicles that do not result in a visible rut that alters soil compaction.
[5] Burial of electrical conductors located within the energy generation facility may be superseded by more stringent updated electrical code or applicable governing code.

electric conductors must be buried below the surface of the bedrock if friable/rippable, or as near as possible to the surface of the bedrock.

- In unimproved grazing areas or on land permanently devoted to pasture the minimum depth of cover must be 36-inches.

- Where electrical conductors are buried directly below the generation facility's access road or immediately adjacent (at road edge) to the access road, the minimum depth of cover must be 24-inches. Conductors must be close enough to the road edge as to be not subject to agricultural cultivation / sub-soiling.

- When buried utilities alter the natural stratification of soil horizons and natural soil drainage patterns, rectify the effects with measures such as subsurface intercept drain lines. Consult the local Soil and Water Conservation District concerning the type of intercept drain lines to install to prevent surface seeps and the seasonally prolonged saturation of the conductor installation zone and adjacent areas. Install and/or repair all drain lines according to Natural Resources Conservation Service conservation practice standards and specifications. Drain tile must meet or exceed the AASHTO M-252 specifications. Repair of subsurface drains tiles should be consistent with the NYSDAM's details for *"Repair of Severed Tile Line"* found in the pipeline drawing A-5 (http://www.agriculture.ny.gov/ap/agservices/Pipeline-Drawings.pdf).

- In pasture areas, it may be necessary to construct temporary fencing (in addition to the Project's permanent security fences) around work areas to prevent livestock access to active construction areas and areas undergoing restoration. For areas returning to pasture, temporary fencing will be required to delay the pasturing of livestock within the restored portion of the LOD until pasture areas are appropriately revegetated. Temporary fencing including the project's required temporary access for the associated fence installations should be included within the LOD as well as noted on the construction drawings. The Project Company will be responsible for maintaining the temporary fencing until the EM determines that the vegetation in the restored area is established and able to accommodate grazing. At such time, the Project Company should be responsible for removal of the temporary fences.

Post-Construction restoration requirements applicable to continued use agricultural areas that suffered ground disturbance due to construction activities (typically lands outside of the developed project's security fence).

- All construction debris in active agriculture areas including pieces of wire, bolts, and other unused metal objects will need to be removed and properly disposed of as soon as practical to prevent mixing with any topsoil.

- Excess concrete will not be buried or left on the surface in active agricultural areas. Concrete trucks will be washed outside of active agricultural areas. Remove all excess subsoil and rock unearthed from construction related activities occurring in areas intended to return to agricultural use. On-site disposal of such material is not permissible in active agricultural lands. Designated spoil disposal locations should be specified in the associated construction plans. If landowner agreements, LOD boundary, or Project's land use approvals do not allow for on-site disposal, material must be removed from the site.[6]

[6] Any permits necessary for disposal under local, State and/or federal laws and regulations must be obtained by the facility operator, with the cooperation of the landowner when required.

- Excess stripped topsoil shall not be utilized for fill within the project area. Any extra topsoil removed from permanently impacted areas (e.g. roads, equipment pads, etc.) should be evenly spread in adjacent agricultural project areas, however not to significantly alter the hydrology of the area.

- Regrade all access roads outside of the security fencing (as determined necessary by the EM), to allow for farm equipment crossing and restore original surface drainage patterns, or other drainage pattern incorporated into the design.

- Repair all surface or subsurface drainage structures damaged during construction as close to preconstruction conditions as possible, unless said structures are to be removed as part of the project design. Correct any surface or subsurface drainage problems resulting from construction of the solar energy project with the appropriate mitigation as determined by the Environmental Monitor, Soil and Water Conservation District and the Landowner.

- On agricultural land needing restoration because of ground disturbance, postpone any restoration practices until favorable (workable, relatively dry) topsoil/subsoil conditions exist. Restoration must not be conducted while soils are in a wet or plastic state of consistency. Stockpiled topsoil must not be regraded, and subsoil must not be decompacted until plasticity, as determined by the Atterberg field test, is adequately reduced. No permanent project restoration activities shall occur in agricultural areas between the months of October through May unless favorable soil moisture conditions exist.

- In all continued use agricultural land where the topsoil was stripped, subsoil decompaction shall be conducted prior to topsoil replacement. Following construction, all such areas will be decompacted to a depth of 18 inches with a tractor mounted deep ripper or heavy-duty chisel plow. Soil compaction results shall be no more than 250 pounds per square inch (PSI) throughout the decompacted 18 inches as measured with a soil penetrometer. Following decompaction, all rocks 4 inches and larger in size unearthed from decompaction will be removed from the surface of the subsoil prior to replacement of the topsoil. The topsoil will be replaced to original depth and the original contours will be reestablished where possible. All rocks 4 inches and larger from topsoil shall be removed from the surface of the topsoil. Subsoil decompaction and topsoil replacement must be avoided after October 1, unless approved on a site-specific basis by the landowner in consultation with NYSDAM. All parties involved must be cognizant that areas restored after October 1st may not obtain sufficient growth for stabilization[7] to prevent erosion over the winter months. If areas are to be restored after October 1st, necessary provisions must be made to prevent potential springtime erosion, as well as restore any eroded areas in the springtime, to establish proper growth. Excess stripped topsoil shall be evenly spread in the adjacent project areas, or adjacent agricultural areas (within the LOD), however, not to significantly alter the hydrology of the area.

- In all continued use agricultural areas where the topsoil was not stripped, including timber matted areas, the EM shall determine appropriate activities to return the area to agricultural use. These activities may include decompaction, rock removal, and revegetation. Soil compaction should be tested in the affected areas and the affected area's adjacent undisturbed areas using an appropriate soil penetrometer or other soil compaction measuring device as soon as soils achieve moisture equilibrium with adjacent unaffected areas. Compaction tests will be made at regular intervals of distance throughout the affected areas, including each soil type identified within the affected areas. Soil compaction results shall be measured with a soil penetrometer not exceeding more than 250 pounds per square inch (PSI), by

[7] Sufficient growth for stabilization should be determined by comparison with unaffected crop production. Annual crops restored after normal planting window (as determined by the landowner or associated producer) should be stabilized with Aroostook Winter Rye at the rate of 150/100 lbs. per acre (broad cast/drill seeder).

comparing probing depths of both the affected and unaffected areas. Where representative soil density of the affected area's collective depth measurements present compaction restrictions exceeding an acceptable deviation of no more than 20% from the adjacent undisturbed area's mean soil density, additional decompaction may be required to a depth of 18-inches with a tractor mounted deep ripper or heavy-duty chisel plow. Following decompaction, remove all rocks unearthed from decompaction activities 4 inches and larger in size from the surface. Revegetation shall be performed in accordance with the instructions below.

- Seed all agricultural areas from which the vegetation was removed or destroyed with the seed mix specified by the landowner/agriculture producer or as otherwise recommended in the Department's fertilizer, lime and seeding guideline: [https://www.agriculture.ny.gov/ap/agservices/Fertilizer_Lime_and_Seeding_Recommendations.pdf]. Soil amendments should be applied as necessary so that restored agricultural areas' soil properties, at minimum, reasonably reflect the pre-construction soil test results or as otherwise agreed to by the involved parties to ensure continued agricultural use. All parties must be cognizant that areas restored after October 1st may not obtain sufficient growth to prevent erosion over the winter months. If areas are to be restored after October 1st, necessary provisions must be made to restore and/or re-seed any eroded or poorly germinated areas in the springtime, to establish proper growth.

Monitoring and Remediation

Project Companies shall provide a monitoring and remediation period of one complete growing season following the date upon which the desired crop is planted. All projects subject to NYS Public Service Law Article 10 will provide a monitoring period of two complete growing seasons following the date upon which the project achieves the establishment of the desired crop.

On site monitoring shall be conducted seasonally at least three times during the growing season (Spring, Summer, Fall). Monitoring is required to identify any remaining impacts directly associated with the construction of the project on agricultural lands proposed to remain or resume agriculture production, including the effects of climatic cycles such as frost action, precipitation and growing seasons to occur, from which various monitoring observations can be made. NYSDAM expects the Project Company (or its contractor) to retain the EM for follow-up monitoring and remediation (as needed) in agricultural areas. Monitoring is limited to the restored agricultural area. Non-project related impacts affecting the restored project area will be discussed with NYSDAM staff and considered for omission from future monitoring and remediation. The EM is expected to record the following observations from onsite inspections:[8]

- **Topsoil Thickness and Trench Settling** – The EM observations may require small hand dug holes to observe the percentage of settled topsoil in areas where the topsoil was stripped, or trenching was performed without stripping topsoil. Observations concerning depth of topsoil deficiencies shall require further remediation by re-appropriating additional topsoil. Acceptable materials for remediation are: known areas of native excess topsoil (according to records of project specific excess topsoil disposal spread within the original LOD) or imported topsoil free of invasive species that is consistent with the quality of topsoil on the affected site.

[8] The activities that follow are not necessary for restored agricultural lands on which the farmer or landowner has commenced activities, including agricultural activities or other use that tend to reverse restoration or create conditions that would otherwise trigger restoration. Should NYSDAM contend upon inspection that conditions indicate that post-construction restoration activities were improperly performed or insufficient, NYSDAM may inform the project company and NYSERDA for further investigation and remediation.

- **Excessive Rock (>4-inches)** - Determined by a visual inspection of disturbed areas as compared to unaffected portions of the same field located outside the construction area. Observations concerning excess stone material in comparison to off-site conditions shall require further remediation including removal and disposal of all excess rocks and large stones.

- **Soil Compaction** - Project affected agricultural soils should be tested using an appropriate soil penetrometer or other soil compaction measuring device. Compaction tests will be made at regular intervals of distance throughout the access or work areas, including each soil type identified on the affected agricultural areas. Where representative soil density of the affected area exceeds the representative soil density of the unaffected areas, additional decompaction may be required. Consultation with NYSDAM staff and the agricultural producer(s) should be conducted prior to scheduling additional decompaction. If warranted, decompaction to a depth of 18-inches with a tractor mounted deep ripper or heavy-duty chisel plow. Restoration of displaced topsoil to original depth and re-establish original contours where possible. Decompaction deep shattering will be applied during periods of relatively low soil moisture to ensure the desired mitigation and to prevent additional soil compaction. Oversized stone/rock (Four-inches) material that is uplifted/unearthed to the surface as a result of the deep shattering will be removed.

- **Drainage** – The EM shall visually inspect the restored agricultural areas in search of pervasive stunted crop growth due to seasonal saturation, not previously experienced at the site and not resulting from the agricultural producer's irrigation management or due to excessive rainfall. Identified areas of stunted crop growth shall be compared to the nearest undisturbed adjacent areas under a substantially equivalent terrain and crop management plan. Drainage observations should be evaluated to determine if the project affected surface or sub-surface drainage during construction or restoration. Project caused drainage issues affecting or likely to reduce crop productivity of the adjacent areas will have to be remediated via a positive surface drainage, sub-surface drainage repair or an equivalent.

- **Agriculture Fencing and Gates** – The EM shall inspect Project associated fencing and gates (installed, altered or repaired) within the Project's LOD associated with agricultural activities for function and longevity. The Project Company is responsible during the Monitoring and Remediation Phase for maintaining the integrity of Project associated fencing and gates.

The Project Company (or its contractor) shall consolidate each applicable growing season's observations into an annual report during the monitoring period and shall be provided upon request to NYSDAM. Annual reports should include date stamped photographs illustrating crop growth in comparison with unaffected portions the agricultural areas.

The EM shall record observations of the establishment of the desired crop and subsequent crop productivity within restored agricultural areas and shall be evaluated by comparing its productivity to that of the nearest adjacent undisturbed agricultural land of similar crop type within the same field. If a decline in crop productivity is apparent the Project Company as well as other appropriate parties must determine whether the decline is due to project activities. If project activities are determined to be the primary detrimental factor, the project EM will notify NYSDAM concerning unsuccessful restoration and to potentially schedule a NYSDAM staff field visit. If project restoration is determined to be insufficient, the Project Company will develop a plan for appropriate rehabilitation measures to be implemented. NYSDAM staff will review and approve said plan prior to implementation. Additional monitoring may be required depending on additional restoration activities needed.

The Project Company is not responsible for site conditions and/or potential damages attributable to the agricultural producer's land use management or others' land use management.

Decommissioning

If the operation of the generation facility is permanently discontinued, remove all above ground structures (including panels, racking, signage, equipment pad, security fencing) and underground utilities if less than 48-inches deep. All concrete piers, footers, or other supports must be removed to a minimum depth of 48-inches below the soil surface. The following requirements apply to electric conductors located at the respective range of depth below the surface:

- 48-inches plus: All underground electric conduits and direct buried conductors may be abandoned in place. Applicable conduit risers must be removed, and abandoned conduit must be sealed or capped to avoid a potential to direct subsurface drainage onto neighboring land uses.

- Less than 48-inches: All underground direct buried electric conductors and conductors in conduit and associated conduit with less than 48-inches of cover must be removed, by means of causing the least amount of disturbance as possible.

Access roads in agricultural areas must be removed, unless otherwise specified by the landowner. If access is to be removed, topsoil will have to be returned from recorded project excess native topsoil disposal areas, if present, or imported topsoil free of invasive species that is consistent with the quality of topsoil on the affected site. Restore all areas intended for agricultural production, according to recommendations by the current landowner or leasing agricultural producer, and as required by any applicable permit, the Soil and Water Conservation District, and NYSDAM.

Monitoring and restoration requirements in accordance to the prior sections of these guidelines, will be required for the decommissioning restoration. NYSDAM requires notice before the Project Company undertakes decommissioning.

_____ (Project Company) hereby agrees to use best efforts to adopt and employ the provisions of the NYSDAM Guidelines for Agricultural Mitigation for Solar Energy Projects in all material aspects of the construction, post construction and decommissioning of this project. Where Project Company determines that it cannot perform an activity in a manner that meets the material terms of any provision of the Guidelines, the Project Company or its Environmental Monitor will notify NYSDAM and make good faith efforts to devise an alternative solution that will mitigate adverse agricultural impacts.

_____ _____

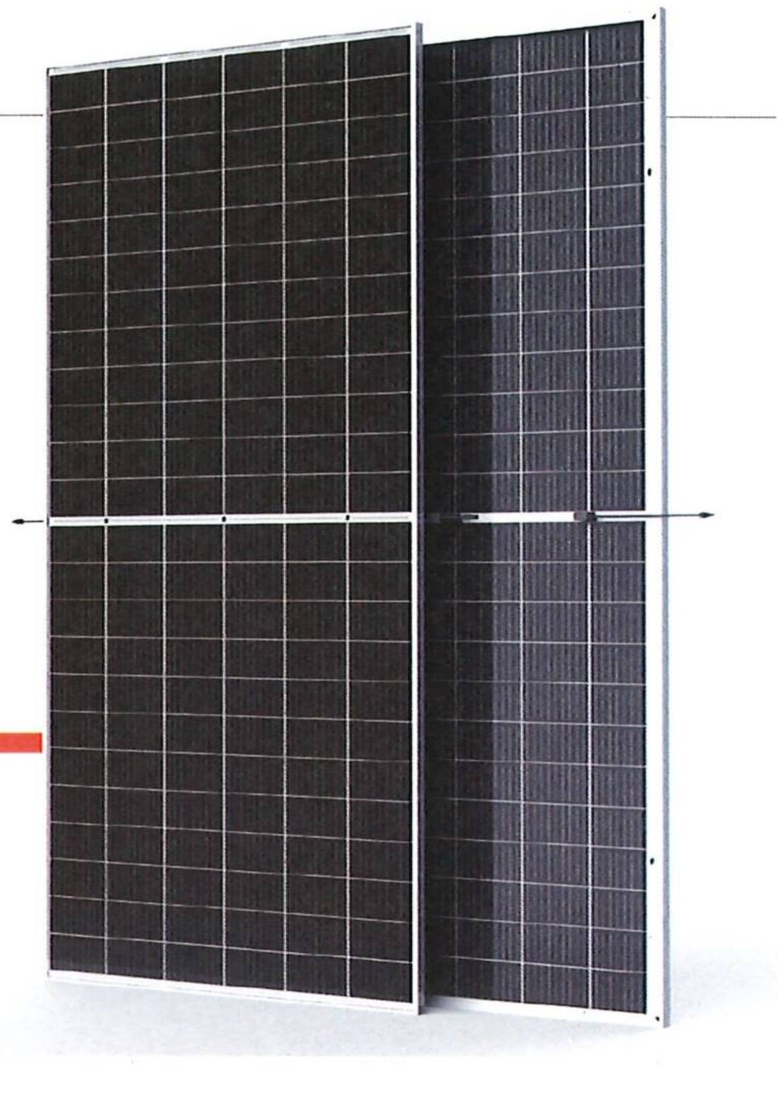
Signature Date

Attachment 9 – Equipment Datasheets

THE

DUOMAX twin

BIFACIAL DUAL GLASS 144 CELL MULTI BUSBAR MODULE



144-Cell
MONOCRYSTALLINE MODULE

390-410W
POWER OUTPUT RANGE

20.2%
MAXIMUM EFFICIENCY

0~+5W
POSITIVE POWER TOLERANCE

PRODUCTS	POWER RANGE
TSM-DEG15MC.20(II)	390-410W

Founded in 1997, Trina Solar is the world's leading total solution provider for solar energy. With local presence around the globe, Trina Solar is able to provide exceptional service to each customer in each market and deliver our innovative, reliable products with the backing of Trina as a strong, bankable brand. Trina Solar now distributes its PV products to over 100 countries all over the world. We are committed to building strategic, mutually beneÿcial collaborations with installers, developers, distributors and other partners in driving smart energy together.

Comprehensive Products and System Certificates

IEC61215/IEC61730/IEC61701/IEC62716
ISO 9001: Quality Management System
ISO 14001: Environmental Management System
ISO14064: Greenhouse Gases Emissions Veriÿcation
OHSAS 18001: Occupation Health and Safety Management System

High power output

- Up to 410W front power and 20.2% module efficiency with half-cut and MBB (Multi Busbar) technology enabling higher BOS savings
- Lower resistance of half-cut cells ensures higher power

Certified to perform in highly challenging environments

- High PID resistance through cell process and module material control
- Resistant to salt, acid, sand, and ammonia
- Proven to be reliable in high temperature and humidity areas
- Certified to the best fire class A
- Minimizes micro-crack and snail trails
- Certified to 5400 Pa positive load and 2400 Pa negative load

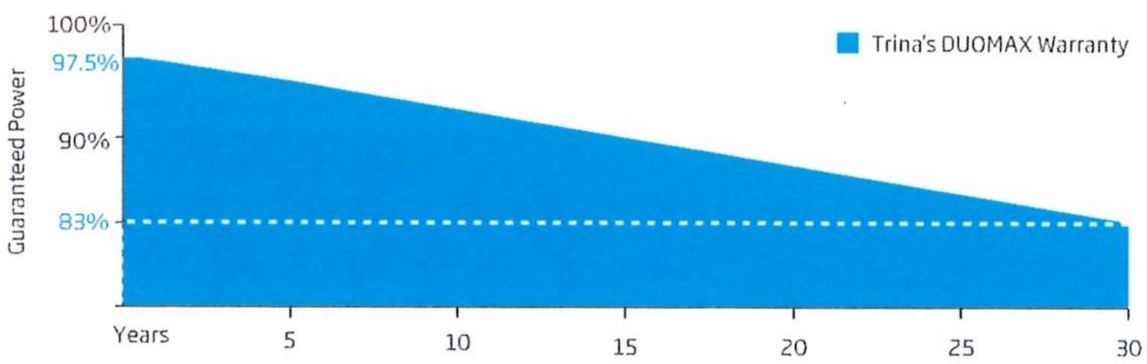
High energy generation, low LCOE

- Up to 25% additional power gain from back side, depending on the albedo
- Excellent 3rd party validated IAM and low light performance with cell process and module material optimization
- Low temp coefficient (-0.35%) and NMOT increases energy production
- Better anti-shading performance and lower operating temperature
- Higher power from same installation footprint as standard modules

Easy to install, wide application

- Frame design enables compatibility with standard installation methods
- Deployable for ground mounted utility, carports, and agricultural projects
- Safe and easy to transport, handle, and install like normal framed modules

Trina Solar's DUOMAX Performance Warranty



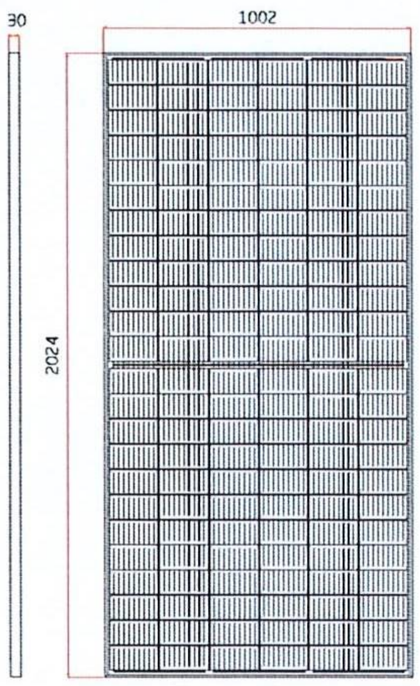
From the 2nd year to the 30th year, the average annual power decline will be no more than 0.5%.

Trinasolar

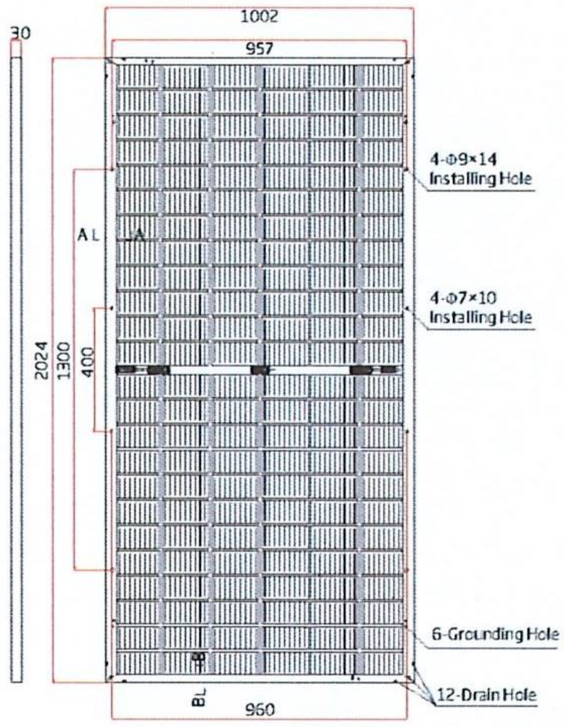
DUOMAX twin

BIFACIAL DUAL GLASS 144 HALF-CELL MBB MODULE

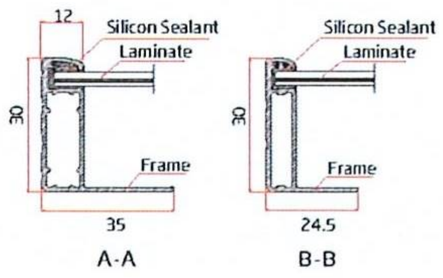
DIMENSIONS OF PV MODULE (mm)



Front View

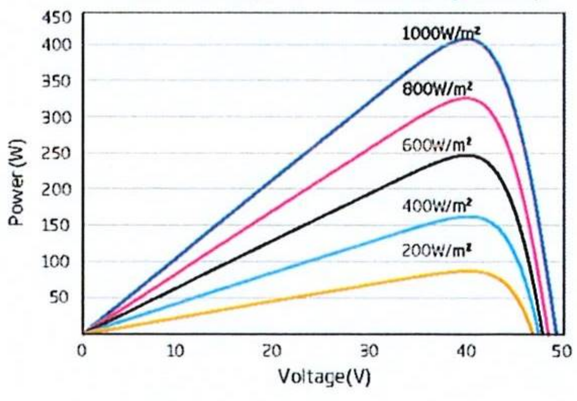


Back View



I-V CURVES OF PV MODULE (405 W)

P-V CURVES OF PV MODULE (405W)



ELECTRICAL DATA (STC)

Peak Power Watts-P_{MAX} (Wp)*	390	395	400	405	410
Power Output Tolerance-P_{MAX} (W)			0 ~ +5		
Maximum Power Voltage-V_{MPP} (V)	40.2	40.5	40.8	41.1	41.4
Maximum Power Current-I_{MPP} (A)	9.71	9.76	9.81	9.86	9.91
Open Circuit Voltage-V_{OC} (V)	48.5	48.7	48.9	49.1	49.3
Short Circuit Current-I_{SC} (A)	10.25	10.29	10.33	10.37	10.41
Module Efficiency η_m (%)	19.2	19.5	19.7	20.0	20.2

STC: Irradiance 1000W/m², Cell Temperature 25°C, Air Mass AM1.5.
*Measuring tolerance: ±3%.

ELECTRICAL DATA (NMOT)

Maximum Power-P_{MAX} (Wp)	295	299	302	306	310
Maximum Power Voltage-V_{MPP} (V)	37.7	38.0	38.3	38.6	38.9
Maximum Power Current-I_{MPP} (A)	7.82	7.86	7.90	7.93	7.97
Open Circuit Voltage-V_{OC} (V)	45.7	45.9	46.1	46.3	46.5
Short Circuit Current-I_{SC} (A)	8.26	8.29	8.33	8.36	8.39

NMOT: Irradiance at 800W/m², Ambient Temperature 20°C, Wind Speed 1m/s.

Electrical characteristics with different rear side power gains (referenced specifically to 405 Wp front)**

Maximum Power-P_{MAX} (Wp)	425	446	466	486	506
Maximum Power Voltage-V_{MPP} (V)	41.1	41.1	41.1	41.1	41.1
Maximum Power Current-I_{MPP} (A)	10.35	10.85	11.34	11.83	12.33
Open Circuit Voltage-V_{OC} (V)	49.2	49.3	49.4	49.5	49.6
Short Circuit Current-I_{SC} (A)	10.89	11.41	11.93	12.44	12.96
P_{max} gain	5%	10%	15%	20%	25%

Power Bifaciality:70±5%.

MECHANICAL DATA

Solar Cells	Monocrystalline
Cell Orientation	144 cells (6 × 24)
Module Dimensions	2024 × 1002 × 30 mm (79.69 × 39.45 × 1.18 inches)
Weight	26.0 kg (57.3 lb)
Front Glass	2.0 mm (0.08 inches), High Transmission, AR Coated Heat Strengthened Glass
Encapsulant material	POE/EVA
Back Glass	2.0 mm (0.08 inches), Heat Strengthened Glass (White Grid Glass)
Frame	30mm (1.18 inches) Anodized Aluminium Alloy
J-Box	IP 68 rated
Cables	Photovoltaic Technology Cable 4.0 mm² (0.006 inches²) Portrait: 280/280 mm (11.02/11.02 inches) Landscape: 1900/1900 mm (74.80/74.80 inches)
Connector	Trina TS4

TEMPERATURE RATINGS

NMOT(Nominal Moudule Operating Temperature)	41°C (±3°C)
Temperature Coefficient of P_{MAX}	- 0.35%/°C
Temperature Coefficient of V_{OC}	- 0.25%/°C
Temperature Coefficient of I_{SC}	0.04%/°C

MAXIMUM RATINGS

Operational Temperature	-40~+85°C
Maximum SystemVoltage	1500V DC (IEC)
	1500V DC (UL)
Max Series Fuse Rating	20A

(Do not connect Fuse in Combiner Box with two or more strings in parallel connection)

WARRANTY

12 year Product Workmanship Warranty

30 year Power Warranty

(Please refer to product warranty for details)

PACKAGING CONFIGURATION

Modules per box: 35 pieces

Modules per 40' container: 665 pieces

**Back-side power gain varies depending upon the specific project albedo

Trinasolar

CAUTION: READ SAFETY AND INSTALLATION INSTRUCTIONS BEFORE USING THE PRODUCT.

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Version number: TSM_DEG15MC20_EN_2020_RED

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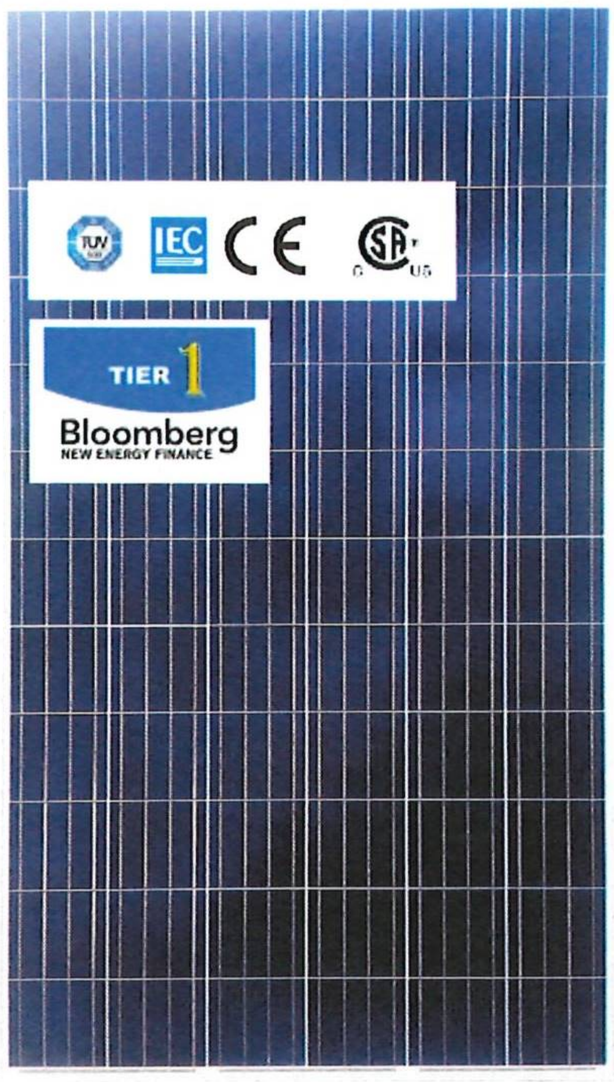
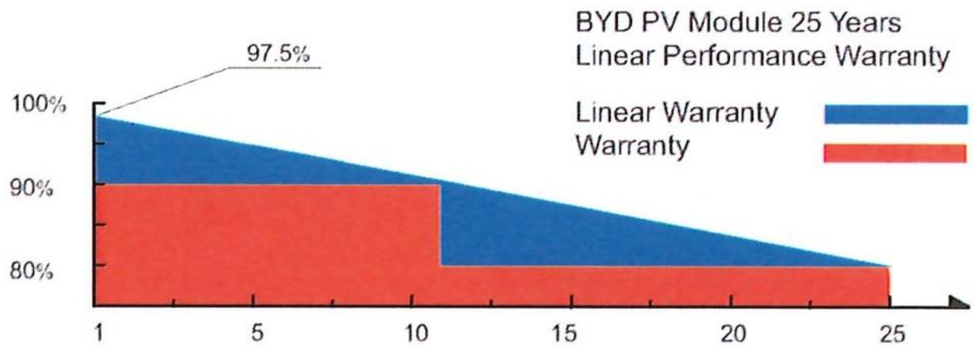
BYD P6K-36 Series-4BB-156.75P

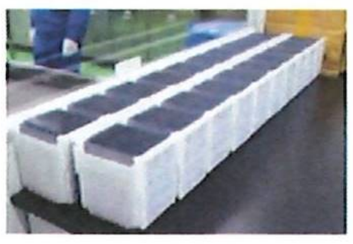
310W 315W 320W 325W 330W 335W 340W



- Average cell efficiency up to 18.3%
  Excellent optical performance
- Positive tolerance 0~5W
  Reliability for output performance
- 12 years for product
  25 years linear Warranty
- Residential roof top systems
  On/Off-grid commercial systems
  On/Off-grid utility systems
- TUV Class C fire class rating
  TUV Salt corrosion resistance test
  TUV 5400Pa for Snow Load Test
  TUV 2400Pa for Wind Load Test
  CSA Type 1 fire class rating
  CSA Mechanical Load=1.5*3600Pa=5400Pa
- IEC 61215(Edition 2005), IEC 61730
  ULC/ORD-C 1703-01,UL 1703-3rd Edition
  ISO9001:2008, ISO14001:2004



Production Process


Wafer Production

Cell Production

Module Production

Module

About BYD

BYD (HK:1211), one of the world's top PV manufacturers, produces from wafer to module, committing to high quality sustainable products and continuous improvement. Integrating with Electrical Vehicles and Battery Energy Storage technology makes BYD the world-leading solution provider from energy generating to consumption and storage.

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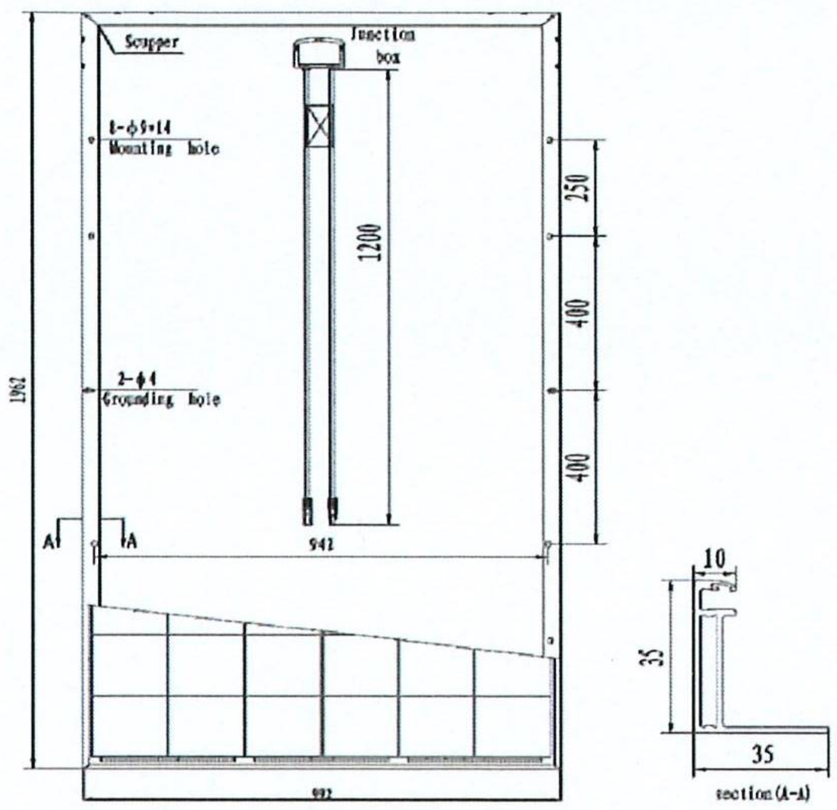
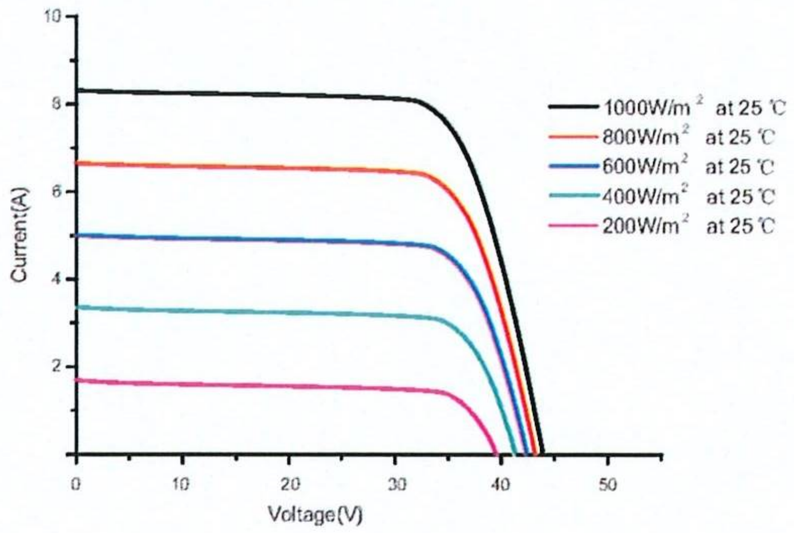
Email: bydpv@byd.com
www.byd.com

BYD P6K-36 Series-4BB-156.75P

Build Your Dreams

310W 315W 320W 325W 330W 335W 340W





Mechanical Specifications

Cell	Polycrystalline Silicon solar cells 156.75 mm * 156.75 mm / 6.17 inch
No. of Cells	72 (6 *12) pcs
Dimension of Module	1962 mm * 992 mm * 35 mm / 77.24 inch * 39.06 inch *1.38 inch
Weight	22.1 kg / 48.62 lbs
Front Glass	3.2 mm tempered glass with ARC
Frame	Anodized aluminum alloy
Junction Box	Ip67
Plug Connector	IP67
Bypass-Diodes	3 pcs
Type of Connector	Mc4 compatible
Cable Section Area	4 mm² / 0.0062 Sq in
Cable Length	2 * 1200 mm / 2 * 47.2 inch

Temperature Coefficients

Nominal Operating Cell Temperature (NOCT)	45℃± 2℃
Short-Circuit Current Temperature Coefficient	0.07%/℃
Open-Circuit Voltage Temperature Coefficient	-0.31%/℃
Peak Power Temperature Coefficient	-0.39%/℃

Package Information

Package	40' HC
Pcs / Pallet	30
Pallet / Container	22
Pcs / Container	660

BYD P6K-36 Series Electrical Specification

STC

Item \ Module	BYD 310P6K-36	BYD 315P6K-36	BYD 320P6K-36	BYD 325P6K-36	BYD 330P6K-36	BYD 335P6K-36	BYD 340P6K-36
Open Circuit Voltage (Voc)	45.79 V	46.09 V	46.39 V	46.69 V	46.98 V	47.28 V	47.58 V
Maximum Operating Voltage (Vmp)	36.38 V	36.58 V	36.78 V	36.98 V	37.16 V	37.35 V	37.53 V
Short Circuit Current (Isc)	8.99 A	9.07 A	9.15 A	9.23 A	9.31 A	9.39 A	9.47 A
Maximum Operating Current (Imp)	8.52 A	8.61 A	8.70 A	8.79 A	8.88 A	8.97 A	9.06 A
Maximum Power in STC (Pmax)	310 Wp	315 Wp	320 Wp	325 Wp	330 Wp	335 Wp	340 Wp
Module Efficiency	15.9%	16.2%	16.4%	16.7%	17.0%	17.2%	17.5%
Operating Temperature	-40℃~85℃						
Max. Fuse Current Rating	15 A						
Maximum System Voltage	1500 VDC						
Power Tolerance	0~5W						
Application Classes	Class A						

STC: IRRADIANCE 1000W/m², Module Temperature 25℃, AM=1.5 Ave. efficiency reduction of 4.5% at 200W/m²

NOCT

Item \ Module	BYD 310P6K-36	BYD 315P6K-36	BYD 320P6K-36	BYD 325P6K-36	BYD 330P6K-36	BYD 335P6K-36	BYD 340P6K-36
Open Circuit Voltage (Voc)	42.2 V	42.5 V	42.8 V	43.1 V	43.4 V	43.7 V	43.9 V
Maximum Operating Voltage (Vmp)	33.8 V	34.0 V	34.3 V	34.5 V	34.8 V	35.1 V	35.3 V
Short Circuit Current (Isc)	7.29 A	7.36 A	7.42 A	7.49 A	7.54 A	7.60 A	7.66 A
Maximum Operating Current (Imp)	6.77 A	6.83 A	6.90 A	6.96 A	7.01 A	7.08 A	7.14 A
Maximum Power in NOCT (Pmax)	228.8 Wp	232.6 Wp	236.4 Wp	240.4 Wp	244.2 Wp	248.1 Wp	251.9 Wp

NOCT: open-circuit module operation temperature at 800W/m² irradiance, 20°C ambient temperature, 1m/s wind speed.

DELTA PV INVENTER

Commercial Series / M250HV

FEATURES

- High voltage up to 1500 Vdc & 800 Vac
- Excellent efficiency performance, >99 % peak & 98.5% CEC
- Electrolytic capacitor free, more than 20 years life
- NEMA 4X protection level
- Integral DC Arc fault detector
- Independent AC wiring box, fast & safe installation design
- SUB_1G communication and APP quick commission
- Fuseless design
- 12 MPP Trackers, ultra-wide MPPT voltage range
- Night time reactive power
- Built in DC switches, type 2 SPD and string monitoring function
- Smart cooling system

www.deltaww.com

PRODUCT REVIEW

- Delta M250HV is able to reach >99.0% peak efficiency, 98.8% CEC-efficiency over converting PV energy.
- 12 MPPT design with ultra-wide MPP voltage range (820~1350V) can maximize customer's revenue.

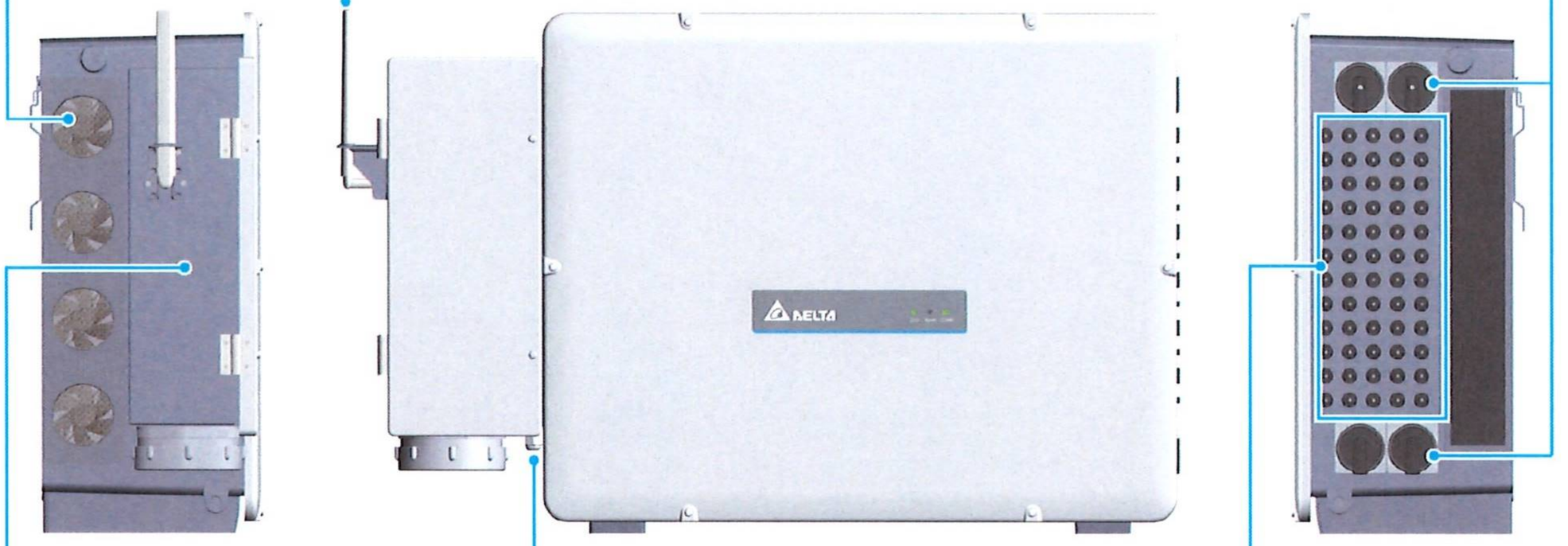
OUTLOOK INTRODUCTION

Wireless Communication/APP

MyDeltaSolar APP provides quick on-site commission and total plant monitoring solution.

SUB_1G
(MyDeltaSolar APP)

DC Switch



Swappable Fan Kit
Smart cooling system enhance the total plant performance and minimizing the noise.

AC Wiring Box
AC and communication wiring box

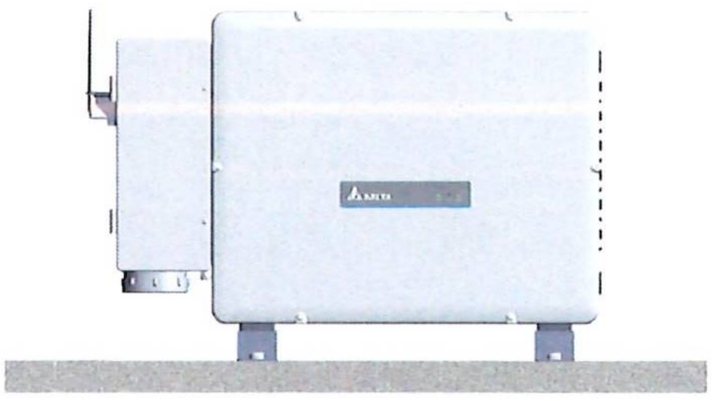
Gland for Communication
(RS-485 / Dry Contact / DI)

30 Pairs of Amphenol UTX
PV Connector

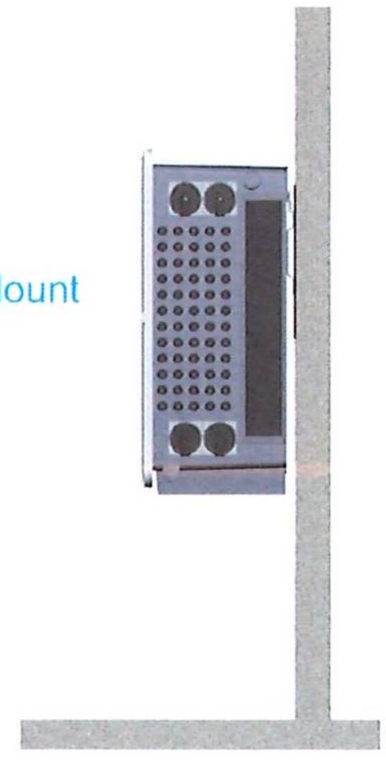
Flexible and Fast Installation

The M250HV can easily installed on the ground or mount on the wall;
offers flexible site layout design and cost saving for installation.

Ground Mount



Wall Mount



SPECIFICATIONS

DC INPUT	M250HV
Max. DC Voltage	1500 V
Operating Voltage Range	550 - 1500 V
MPP Voltage Range	820 - 1350 V
Nominal DC Voltage	1150 V
MPP Tracker	12
Max. Operating Current	312 A
Max. allowable array (Isc)	480 A
DC Connection Type	30 pairs of UTX Connectors (No.1~6: 2 pairs / MPPT ; No.7~12: 3 pairs / MPPT)
String fuse	Need external fuse if using 3 pairs / MPPT
Surge Protection	Type II SPD
DC Switch	Yes
String Current Monitoring	Yes
AC OUTPUT	
Max. Output Power	250 kVA
Max. Output Current	180.5 A
Output Power	250 kW @ 104 °F ; 225 kW @ 122 °F
Nominal AC Voltage	800 V
AC Voltage Range	640 - 920 V
Operating Frequency Range	50 / 60 ±5Hz
Power Factor	0.8 cap - 0.8 ind adjustable
Surge Protection	Type II SPD
T.H.D	< 3 %
AC Connection Type	Screw Type Terminal
Night Time Consumption	< 5 W
EFFICIENCY	
Peak Efficiency	> 99.0 %
CEC Efficiency	98.5 %
INFORMATION	
Communication Port	RS-485 / SUB_1G
Indicator	LED (Alarm, Grid, COMM.)
GENERAL INFORMATION	
Operating temp. range	-13 ~ 140 °F
Protection level	NEMA 4X
Operating elevation	< 13000 ft, Outdoor, wet locations
Cooling Method	Forced air cooling with Smart fan control
Dimension (WxHxD, in)	39 x 25.4 x 10.8
Weight	198.4 lb

- Specifications are subject to change without prior notice -

Smarter. Greener. Together.

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